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# ENUMERATIO

# PLANTARUM GUATEMALENSIUM

QUAS EDIDIT

JOHN DONNELL SMITH.

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PARS III.

Mo. Bot. Garden,
1893

OQUAWKÆ IN REPUBL. ILLINOIS.
APUD H. N. PATTERSON
Typographum Botanicum.
MDCCCXCIII.

Quomodo antea in Partibus I et II, ita nunc tertiæ huius editionis exsiccatorum schedulas ad usum faciliorem in formam libelli collegi, addita appendice nominum quæ nonnullas priorum editionum schedulas vel emendent vel compleant.

Provinciæ Guatemalenses, cum inter se solo cœlo altitudine aliis conditionibus multum differant, mire multifarium præbent regnum vegetabile. Quæ diversitas ut melius cognoscatur, valde optanda sunt exempla e stationibus quam maxime diversis orta. Qua re motus operam dedi, nec sine proventu satis secundo, ut aliquos incolas invenirem, qui et ipsi rei herbariæ diligentes plantas in iis Guatemalæ partibus colligerent quas percurrere egomet vix possem sperare.

Eorum autem, qui et huic iam editioni amplam materiam botanicam suppeditaverunt et futuris editionibus conferre fortasse pergent, laudatione dignus præcipue videtur Hinricus Theophilus *Heyde* missionarius apostolicus sacerdos oppidi Sanctæ Rosæ, vir non solum

divinarum sed etiam humanarum rerum studiosus. Hic una cum nepote suo Ernesto *Lux*, iuvene res novas acutissime cernente, terras peragraverunt viris botanicis hactenus ignotas, ubi via difficilis aut nulla incolæque aboriginales inculti omnibus peregrinatoribus nisi auspiciis ecclesiasticis advenientibus prorsus inimici sunt.

Quæ secundo loco memoranda sunt exsiccata collegit *W. C. Shannon* chir. adj. Exerc. Am. Septent., mihi autem determinanda et distribuenda tradidit *M. M. Macomb* centurio, præfectus fabris in ea expeditione qua exploratorum cohors Americana Septent. locum viæ ferreæ intercontinentali ponendæ in America Centrali quærit. Huic seriei alioquin gravi doleo deesse magnam partem exempla ex uno et eodem loco duplicata.

Species tamen huius opusculi, quippe quæ a collectoribus diversis comparatæ sint, multæ iterum occurrunt; quæ quidem ipsa res in quam diversa loca plantæ eiusdem nominis dispersæ sint bene exhibet, effecitque ut quod antea promiseram exsequi possem, ut exempla quæ forte deessent facultate oblata postea in herbaria primaria transmitterem.

J. D. S.

Baltimorii, m. Sept. 1893.

## 3599. Clematis dioica L.,
### var. Brasiliana Eichl.

Volcan Flores, Depart. Jutiapa, alt. 2500 pp.
M. Oct. 1892. Leg. W. C. Shannon.

## 821. Clematis grossa Benth.

Santiago, Depart. Zacatepequez, alt. 6500 pp.
1891. Leg. Rosalió Gómez.

## 2977. Thalictrum Galeottii Lec.

Nebaj, Depart. Quiché, alt. 6000 pp.
M. Maj. 1892. Leg. Heyde et Lux.

## 794. Thalictrum peltatum DC.

Santiago, Depart. Zacatepequez, alt. 6500 pp.
1891. Leg. Rosalió Gómez.

## 3933. Thalictrum peltatum DC.

Cenaguilla, Depart. Santa Rosa, alt. 4000 pp.
M. Sept. 1892. Leg. Heyde et Lux.

## 802. Ranunculus pilosus H. B. K.

Santiago, Depart. Zacatepequez, alt. 6500 pp.
1891. Leg. Rosalió Gómez.

## 2917. Ranunculus pilosus H. B. K.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.
M. Apr. 1892. Leg. Heyde et Lux.

## 1482. Cissampelos Pareira L.

San Andrés, Depart. Retalhuleu, alt. 1400 pp.

M. Apr. 1892. Leg. J. D. S.

## 2905. Cissampelos Pareira L.

San Siguan, Depart. Quiché, alt. 5800 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3062. Brasenia peltata Pursh.

Laguna de Carrizal, Depart. Santa Rosa, alt. 5000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 776. Nymphæa ampla DC.,

var. Plumieri Planch.

Depart. Peten.

1887. Leg. R. Walker.

## 2949. Nymphæa elegans Hook.

Laguna de Carrizal, Depart. Santa Rosa, alt. 5000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2940. Argemone Mexicana L.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3936. Argemone Mexicana L.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 2898. Bocconia arborea Watson

in Proc. Am. Ac. xxv. 141.

Cunen, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2505. Bocconia frutescens L.

Acatepeque, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 448. Bocconia frutescens L.,

var. cernua DC. (*Calques des Dessins du Fl. Mex. 14!*)

Coban, Depart. Alta Verapaz, alt. 4600 pp.

M. Jun. 1879. Leg. von Türckheim.

## 2899. Bocconia integrifolia Humb. et Bonpl.,

var. Mexicana DC. (*Calques des Dessins du Fl. Mex. 15!*)

San Miguel Uspantán, Depart. Quiché, alt. 8000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2993. Cardamine angulata Hook.

Chiul, Depart. Quiché, alt. 8000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 1480. Cleome spinosa L.,

forma pungens Eichl.

Caballo Blanco, Depart. Retalhuleu, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 2982. Cleome spinosa L.,
forma pungens Eichl.

Santa Rosa, Depart. Santa Rosa, alt. 3500 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 189. Gynandropsis speciosa DC.

San Martin, Depart. Retalhuleu, alt. 1500 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 246. Gynandropsis speciosa DC.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 3937. Gynandropsis speciosa DC.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 2464 Steriphoma paradoxum Endl.

Caballo Blanco, Depart. Retalhuleu, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 2511. Capparis amygdalina Lam.

Amatitlan, Depart. Amatitlan, alt. 3900 pp.

M. Maj. 1892. Leg. J. D. S.

## 2490. Capparis cynophallophora L.,
forma normalis Eichl.

San José, Depart. Escuintla, alt. 0 pp.

M. Apr. 1892. Leg. J. D. S.

## 4112. Capparis Heydeana Donnell Smith
in Botan. Gaz. xviii. 197.

Laguna de Ayarza, Depart. Jalapa, alt. 8400 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 287. Helianthemum glomeratum Lag.

Chiantla, Depart. Huehuetenango, alt. 6300 pp.

M. Dec. 1891. Leg. W. C. Shannon.

## 3040. Helianthemum glomeratum Lag.

Joyabaj, Depart. Quiché, alt. 4500 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 361. Viola Hookeriana H. B. K.

Chichoy, Depart. Chimaltenango, alt. 9000 pp.

M. Mart. 1892. Leg. W. C. Shannon.

## 2875. Viola Hookeriana H. B. K.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2889. Viola Lindeniana Turcz.

Chiul, Depart. Quiché, alt. 8000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3595. Ionidium angustifolium H. B. K.

Cubilguitz, Depart. Alta Verapaz, alt. 1200 pp.

1892. Leg. von Türckheim.

## 3943. Ionidium parietariæfolium DC.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 2495. Maximiliana vitifolia Kr. et Urb.

in Botan. Jahrb. xv. 293.

(*Bombax vitifolium Willd.; Cochlospermum hibiscoides Kunth.*)

Naranjo, Depart. Escuintla, alt. 300 pp.

M. Mart. 1892. Leg. J. D. S.

## 4308. Maximiliana vitifolia Kr. et Urb.

in Botan. Jahrb. xv. 293.

(*Bombax vitifolium Willd.; Cochlospermum hibiscoides Kunth.*)

Carrizal, Depart. Santa Rosa, alt. 5000 pp.

M. Jan. 1893. Leg. Heyde et Lux.

## 3935. Xylosma Pringlei Robinson?

in Proc. Am. Acad. xxvi. 164; xxvii. 166.

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3066. Xylosma Quichense Donnell Smith

in Botan. Gaz. xviii. 197.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 3064. Xylosma Quichense Donnell Smith, var. subalpina Donnell Smith

in Botan. Gaz. xviii. 198.

El Jute, Depart. Quiché, alt. 10,000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3073. Xylosma velutinum Triana et Planch.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 109. Bixa Orellana L.

Las Animas, Depart. Suchitepequez, alt. 650 pp.

M. Sept. 1891. Leg. W. C. Shannon.

## 1478. Bixa Orellana L.

Rio Ocosito, Depart. Quezaltenango, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 3934. Bixa Orellana L.

*Alchote* incolarum.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 2979. Polygala Americana Mill.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3689. Polygala Americana Mill.

Volcan Acatenango, Depart. Zacatepequez, alt. 7000 pp.

M. Aug. 1892. Leg. W. C. Shannon.

## 3941. Polygala Americana Mill.

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4108. Polygala Americana Mill.

Cenaguilla, Depart. Santa Rosa, alt. 4000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3007. Polygala angustifolia H. B. K.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jul. 1892. Leg. Heyde et Lux.

## 3568. Polygala angustifolia H. B. K.

Cubilguitz, Depart. Alta Verapaz, alt. 1200 pp.

1892. Leg. von Türckheim.

## 3004. Polygala asperuloides H. B. K.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3005[B]. Polygala Berlandieri Watson

in Proc. Am. Acad. xxi. 416.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3008 Polygala Berlandieri Watson?

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 3942. Polygala longicaulis H. B. K.

Estanzuela, Depart. Santa Rosa, alt. 2500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 2978. Polygala monninoides H. B. K.

Arrazola, Depart. Guatemala, alt. 6000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3939. Polygala monninoides H. B. K.

Arrazola, Depart. Guatemala, alt. 6000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 4108. Polygala monninoides H. B. K.

Cenaguilla, Depart. Santa Rosa, alt. 4000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3008[B]. Polygala paniculata L.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 3940. Polygala paniculata L.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 3009. Polygala paniculata L.,

forma floribus roseis.

Arrazola, Depart. Guatemala, alt. 6000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 3006. Polygala Pringlei Watson

in Proc. Am. Acad. xxv. 142.

El Jute, Depart. Quiché, alt. 11,000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 1303. Polygala puberula A. Gray.

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Feb. 1892. Leg. J. D. S.

## 2515. Polygala puberula A. Gray.

Barranca de Chinautla, Depart. Guatemala, alt. 4000 pp.

M. Maj. 1892. Leg. J. D. S.

## 3007[B]. Polygala puberula A. Gray.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jul. 1892. Leg. Heyde et Lux.

## 3005. Polygala scoparia H. B. K.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Log. Heyde et Lux.

## 1468. Securidaca erecta L.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Mart. 1892. Leg. J. D. S.

## 1570. Vochysia Guatemalensis Donnell Smith

in Botan. Gaz. xii. 131, t. xxiii.

Sasis, Depart. Alta Verapaz, alt. 5000 pp.

M. Maj. 1891. Leg. H. Helmrich.

## 3938. Stellaria ovata Willd.

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3639. Stellaria ovata Willd.

Volcan Pacaya, Depart. Amatitlan, alt. 9000 pp.

M. Jul. 1892. Leg. W. C. Shannon.

## 3635. Arenaria alsinoides Willd.,

var. ovatifolia Donnell Smith

in Botan. Gaz. xviii. 198.

Volcan de Agua, Depart. Zacatepequez, alt. 10,000 pp.

M. Jun. 1892. Leg. W. C. Shannon.

## 2520. Talinum patens Willd.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Apr. 1892. Leg. J. D. S.

## 2961. Talinum patens Willd.

Berberena, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3626. Hypericum Mexicanum L.

Volcan de Agua, Depart. Zacatepequez, alt. 9000 pp.

M. Jun. 1892. Leg. W. C. Shannon.

## 3944. Hypericum paucifolium Watson

in Proc. Am. Acad. xxv. 143.

Casillas, Depart. Santa Rosa, alt. 4000 pp.

M. Sept. 189 Leg. Heyde et Lux.

## 2919. Hypericum uliginosum H. B. K.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2606. Clusia Guatemalensis Hemsl.

Volcan de Fuego, Depart. Zacatepequez, alt. 6000 pp.

M. Mart. 1892. Leg. J. D. S.

## 3945. Clusia Guatemalensis Hemsl.

Rio de las Cañas, Depart. Santa Rosa, alt. 3000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 2968. Ternstrœmia Tepezapote Cham. et Schl.

Zamorora, Depart. Santa Rosa, alt. 5500 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 2969. Ternstrœmia Tepezapote Cham. et Schl.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 790. Freziera theoides Swz.

Santiago, Depart. Zacatepequez, alt. 6500 pp.

1891. Leg. Rosalió Gómez.

## 1326. Saurauja oreophila Hemsl.

determ. Hemsley.

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Feb. 1892. Leg. J. D. S.

## 2946. Saurauja anisopoda Turcz.

Frutex 9–12-pedalis.

San Miguel Uspantán, Depart. Quiché, alt. 8000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 2518. Saurauja macrophylla Linden.

Chinautla, Depart. Guatemala, alt. 4000 pp.

M. Maj. 1892. Leg. J. D. S.

## 1493. Saurauja pedunculata Hook.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 1494. Saurauja pedunculata Hook.

Rio Sis, Depart. Suchitepequez, alt. 1300 pp.

M. Apr. 1892. Leg. J. D. S.

## 3946. Malvastrum ribifolium Hemsl.,
forma floribus clandestinis pentandris octogynis.
(=927 Bourgeau!)
Laguna de Ayarza, Depart. Jalapa, alt. 8800 pp.
M. Sept. 1892. Leg. Heyde et Lux.

## 2897. Malvastrum vitifolium Hemsl.
San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.
M. Apr. 1892. Leg. Heyde et Lux.

## 3950. Anoda acerifolia DC.
Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.
M. Aug. 1892. Leg. Heyde et Lux.

## 301. Anoda hastata Cav.
Colotenango, Depart. Huehuetenango, alt. 5210 pp.
M. Dec. 1891. Leg. W. C. Shannon.

## 2538. Anoda hastata Cav.
Capetillo, Depart. Zacatepequez, alt. 4300 pp.
M. Mart. 1892. Leg. J. D. S.

## 2900. Anoda hastata Cav.
San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.
M. Apr. 1892. Leg. Heyde et Lux.

## 3600. Anoda hastata Cav.
Santa Teresa, Depart. Santa Rosa, alt. 2500 pp.
M. Oct. 1892. Leg. W. C. Shannon.

## 132. Sida acuta Burm.
(*S. carpinifolia L. fil.*)
Santa Barbara, Depart. Sololá, alt. 1370 pp.
M. Aug. 1891. Leg. W. C. Shannon.

## 178. Sida acuta Burm.
(*S. carpinifolia L. fil.*)
Primavera, Depart. Sololá, alt. 760 pp.
M. Jul. 1891. Leg. W. C. Shannon.

## 2928. Sida acuta Burm.
(*S. carpinifolia L. fil.*)
Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.
M. Jul. 1892. Leg. Heyde et Lux.

## 3765[B]. Sida acuta Burm.
(*S. carpinifolia L. fil.*)
Chupadero, Depart. Santa Rosa, alt. 5000 pp.
M. Nov. 1892. Leg. Heyde et Lux.

## 3569. Sida acuta Burm.
(*S. carpinifolia L. fil.*)
Cubilguitz, Depart. Alta Verapaz, alt. 1200 pp.
1892. Leg. von Türckheim.

## 3948. Sida ciliaris L.

Carrizal, Depart. Santa Rosa, alt. 5000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 2543. Sida cordifolia L.

Barranca de Chinautla, Depart. Guatemala, alt. 4000 pp.

M. Maj. 1892. Leg. J. D. S.

## 3949. Sida linifolia Juss.

Chiapas, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3947. Sida rhombifolia L.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 2536. Abutilon discissum Schlecht.

in Linnæa xxv. 218.

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Feb. 1892. Leg. J. D. S.

## 2537. Abutilon elatum Griseb.

Capetillo, Depart. Zacatepequez, alt. 4300 ft.

M. Mart. 1892. Leg. J. D. S.

## 219. Abutilon venosum Lemaire.

San Martin, Depart. Retalhuleu, alt. 1500 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 2960. Abutilon venosum Lemaire.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 424. Pavonia rosea Schlecht.

Primavera, Depart. Sololá, alt. 760 pp.

M. Jul. 1891. Leg. W. C. Shannon.

## 307. Malvaviscus arboreus Cav.

Canibal, Depart. Huehuetenango, alt. 3180 pp.

M. Dec. 1891. Leg. W. C. Shannon.

## 384. Malvaviscus concinnus H. B. K.?

Las Animas, Depart. Suchitepequez, alt. 650 pp.

M. Sept. 1891. Leg. W. C. Shannon.

## 822. Malvaviscus leucocarpus Planch. et Lind.?

Santiago, Depart. Zacatepequez, alt. 6500 pp.

1891. Leg. Rosalió Gómez.

## 419. Malvaviscus mollis DC.

Primavera, Depart. Sololá, alt. 760 pp.

M. Jul. 1891. Leg. W. C. Shannon.

## 2920. Malvaviscus mollis DC.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 113. Hibiscus Abelmoschus L.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 2540. Hibiscus Abelmoschus L.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 269. Hibiscus Sabdariffa L.

Rio Samalá, Depart. Retalhuleu, alt. 1100 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 4320. Hibiscus Sabdariffa L.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 2541. Hibiscus tiliaceus L.

San José, Depart. Escuintla, alt. 0 pp.

M. Apr. 1892. Leg. J. D. S.

## 272. Gossypium Barbadense L.

Rio Samalá, Depart. Retalhuleu, alt. 1100 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 2542. Gossypium Davidsoni Kell.

San José, Depart. Escuintla, alt. 0 pp.

M. Apr. 1892. Leg. J. D. S.

## 275. Pachira aquatica L.

Las Animas, Depart. Suchitepequez, alt. 650 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 2544. Pachira macrocarpa Hook.

San José, Depart. Escuintla, alt. 0 pp.

M. Apr. 1892. Leg. J. D. S.

## 2789. Bombax Mexicanum Hemsl.?

Naranjo, Depart. Escuintla, alt. 300 pp.

M. Mart. 1892. Leg. J. D. S.

## 2546. Bombax Mompoxense H. B. K.?

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Apr. 1892. Leg. J. D. S.

## 311. Chorisia soluta Donnell Smith

in Botan. Gaz. xvi. 1.

Canibal, Depart. Huehuetenango, alt. 3180 pp.

M. Dec. 1891. Leg. W. C. Shannon.

## 364. Cheiranthodendron platanoides H. Baill.

Chichoy, Depart. Chimaltenango, alt. 9000 pp.

M. Mart. 1892. Leg. W. C. Shannon.

## 2896. Cheiranthodendron platanoides H. Baill.

*Mano de mico* incolarum.

San Miguel Uspantán, Depart. Quiché, alt. 9000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2545. Sterculia Carthaginensis Cav.

Naranjo, Depart. Escuintla, alt. 300 pp.

M. Apr. 1892. Leg. J. D. S.

## 199. Myrodia Guatemalteca Donnell Smith

in Botan. Gaz. xvi. 2.

Rio Bravo, Depart. Sololá, alt. 460 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 193. Bernouillia flammea Oliv.

in Hook. Ic. Pl. tt. 1169, 1170.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 194. Helicteres guazumæfolia H. B. K.

Rio Samalá, Depart. Retalhuleu, alt. 1100 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 419[B]. Helicteres guazumæfolia H. B. K.

Primavera, Depart. Sololá, alt. 760 pp.

M. Jul. 1891. Leg. W. C. Shannon.

## 3953. Melochia hirsuta Cav.

Rio de las Cañas, Depart. Santa Rosa, alt. 3000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 2882. Waltheria Americana DC.

Rio Negro, Depart. Quiché, alt. 3600 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 1323. Guazuma ulmifolia Lam.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Feb. 1892. Leg. J. D. S.

## 1496. Guazuma ulmifolia Lam.

Caballo Blanco, Depart. Retalhuleu, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 2478. Guazuma ulmifolia Lam.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Apr. 1892. Leg. J. D. S.

## 2493. Guazuma ulmifolia Lam.

Naranjo, Depart, Escuintla, alt. 300 pp.

M. Mart. 1892. Leg. J. D. S.

## 2929. Guazuma ulmifolia Lam.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 3951. Buettneria Carthaginensis Jacq.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 1483. Buettneria lateralis Presl.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 264. Triumfetta Orizabæ Turcz.

San Martin, Depart. Quezaltenango, alt. 8140 pp.

M. Nov. 1891. Leg. W. C. Shannon.

## 2953. Triumfetta speciosa Seem.

San Siguan, Depart. Quiché, alt. 5800 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3957. Triumfetta speciosa Seem.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3956. Heliocarpus Americanus L.,

forma floribus masculis pleiostemonis, ovario stipitato et stylo filiformi præditis. (*H. polyandrus Watson!*)

Chupadero, Depart. Santa Rosa, alt. 5000 pp.

M. Oct. 1892. Leg. Heyde et Lux.

## 4114. Corchorus pilosus H. B. K.

Chiapas, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4107. Luhea Endopogon Turcz.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 208. Apeiba Tibourbou Aubl.

Rio Samalá, Depart. Retalhuleu, alt. 1100 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 1274. Prockia crucis L.

La Corona, Depart. Guatemala, alt. 4800 pp.

M. Feb. 1892. Leg. J. D. S.

## 2958. Prockia crucis L.

Santa Rosa, Depart. Santa Rosa, alt. 3500 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3762. Prockia crucis L.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 1411 Sloanea pentagona Donnell Smith

in Botan. Gaz. xviii. 1.

Pansamalá, Depart. Alta Verapaz, alt. 4000 pp.

M. Jan. 1889. Leg. von Türckheim.

## 1328. Sloanea quadrivalvis Seem.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Feb. 1892. Leg. J. D. S.

## 1473. Sloanea quadrivalvis Seem.

Rio Ocosito, Depart. Quezaltenango, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 820. Linum Guatemalense Benth.

Santiago, Depart. Zacatepequez, alt. 6500 pp.

1891. Leg. Rosalió Gómez.

## 99. Byrsonima crassifolia H. B. K.

determ. Rose.

Ídolo, Depart. Suchitepequez, alt. 560 pp.

M. Sept. 1891. Leg. W. C. Shannon.

## 2557. Byrsonima crassifolia H. B. K.

determ. Rose.

San José, Depart. Escuintla, alt. 0 pp.

M. Apr. 1892. Leg. J. D. S.

## 3270. Byrsonima crassifolia H. B. K.

determ. Rose.

Santa Rosa, Depart. Santa Rosa, alt. 3500 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3701. Malpighia glabra L.

determ. Rose.

Chupadero, Depart. Santa Rosa, alt. 5000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 207. Malpighia glabra L.,

**var. acuminata Ad. Juss.**

determ. Rose.

Rio Samalá, Depart. Retalhuleu, alt. 1100 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 2555. Malpighia glabra L.,

**var. acuminata Ad. Juss.**

determ. Rose.

Acatepeque, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 3266. Bunchosia bilocellata Schlecht.

determ. Rose.

Rio Negro, Depart. Quiché, alt. 4500 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2548. Galphimia Humboldtiana Bartl.

determ. Rose.

Volcan Acatenango, Depart. Zacatepequez, alt. 6000 pp.

M. Mart. 1892. Leg. J. D. S.

## 3272. Galphimia Humboldtiana Bartl.

determ. Rose.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3705. Heteropterys Beecheyana Ad. Juss.

determ. Rose.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3269. Heteropterys floribunda H. B. K.

determ. Rose.

Joyabáj, Depart. Quiché, alt. 4500 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 2552. Heteropterys laurifolia Juss.

determ. Rose.

Caballo Blanco, Depart. Retalhuleu, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 3267. Stigmaphyllon cordatum Rose

in Botan. Gaz. xviii. 198.

Depart. Guatemala, alt. 5000 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 3703. Banisteria argentea Ad. Juss.?

determ. Rose.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3660. Gaudichaudia Schiedeana Ad. Juss.

determ. Rose.

Chingo, Depart. Jutiapa, alt. 1000 pp.

M. Oct. 1892. Leg. W. C. Shannon.

## 3702. Gaudichaudia Schiedeana Ad. Juss.

determ. Rose.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4120. Gaudichaudia Schiedeana Ad. Juss.

determ. Rose.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 2539. Tribulus maximus L.

Cuyotenango, Depart. Suchitepequez, alt. 1100 pp.

M. Apr. 1892. Leg. J. D. S.

## 3958. Tribulus maximus L.

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 2914. Geranium Mexicanum H. B. K.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3653. Geranium Mexicanum H. B. K.

Volcan Acatenango, Depart. Zacatepequez, alt. 8000 pp.

M. Aug. 1892. Leg. W. C. Shannon.

## 3654. Geranium potentillæfolium DC.

Volcan de Agua, Depart. Zacatepequez, alt. 7500 pp.

M. Jun. 1892. Leg. W. C. Shannon.

## 444. Erodium cicutarium Leman.

Chichoy, Depart. Chimaltenango, alt. 9000 pp.

M. Mart. 1892. Leg. W. C. Shannon.

## 2874. Erodium cicutarium Leman.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2489. Tropæolum Moritzianum Klotzsch.

Capetillo, Depart. Zacatepequez, alt. 4300 ft.

M. Mart. 1892. Leg. J. D. S.

## 2990. Oxalis acuminata Cham. et. Schl.; Turcz.?

(*O. Lindeni Turcz.*)

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 2992. Oxalis clematodes Donnell Smith

in Botan. Gaz. xviii. 198.

San Miguel Uspantán, Depart. Quiché, alt. 6500 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2994. Oxalis corniculata L.

San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3640. Oxalis corniculata L.

Volcan Pacaya, Depart. Amatitlan, alt. 9000 pp.

M. Jul. 1892. Leg. W. C. Shannon.

## 1084. Oxalis Deppei Lodd.?

Depart. Peten.

1889. Leg. R. Walker.

## 2989. Oxalis divergens Benth.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 150. Oxalis Neæi DC.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 232. Oxalis Neæi DC.

Las Animas, Depart. Suchitepequez, alt. 650 pp.

M. Sept. 1891. Leg. W. C. Shannon.

## 2516. Oxalis pilosissima Turcz.

Barranca de Chinautla, Depart. Guatemala, alt. 4000 pp.

M. Maj. 1892. Leg. J. D. S.

## 2991. Oxalis pilosissima Turcz.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 1319. Xanthoxylum foliolosum Donnell Smith

in Botan. Gaz. xviii. 1.

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Feb. 1892. Leg. J. D. S.

## 158. Citrus medica L.

Las Animas, Depart. Suchitepequez, alt. 650 pp.

M. Sept. 1891. Leg. W. C. Shannon.

## 190. Citrus medica L.

Rio Samalá, Depart. Retalhuleu, alt. 1100 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 3072. Citrus medica L.

culta.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 1034. Ouratea podogyna Donnell Smith

in Botan. Gaz. xviii. 2.

Pansamalá, Depart. Alta Verapaz, alt. 3800 pp.

M. Sept. 1886. Leg. von Türckheim.

## 2941. Bursera gummifera Jacq.

*Jicote* incolarum.

Laguna de Carrizal, Depart. Santa Rosa, alt. 5000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3036. Bursera Palmeri Watson

in Proc. Am. Ac. xxii. 402.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 240. Melia Azedarach L.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 2500. Dichapetalum pedunculatum H. Baill.

Acatepeque, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 2479. Heisteria acuminata Benth. et Hook.

(*Rhaptostylum acuminatum Humb. et Bonpl.*)

Calyx fructifer (adhuc carens descriptione) coccineus patulus sinuato-lobatus drupam globosam cyaneam paululum superat.

Acatepeque, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 2480. Heisteria acuminata Benth. et Hook.

(*Rhaptostylum acuminatum Humb. et Bonpl.*)

Calyx fructifer (adhuc carens descriptione) coccineus patulus sinuato-lobatus drupam globosam paululum superat.

Barranca de Eminencia, Depart. Amatitlan, alt. 1400 pp.

M. Feb. 1892. Leg. J. D. S.

## 3708. Wimmeria cyclocarpa Radlk.

in Botan. Gaz. xviii. 199.

Volcan Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3954. Karwinskia Humboldtiana Zucc.,

forma foliis ovato-lanceolatis, pedunculis solitariis bifidis.

Estanzuela, Depart. Santa Rosa, alt. 2500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3051. Rhamnus capreæfolia Schlecht.

Arrazola, Depart. Guatemala, alt. 6000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 1268. Ceanothus azureus Desf.

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Feb. 1892. Leg. J. D. S.

## 2913. Ceanothus azureus Desf.

San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3637. Ceanothus azureus Desf.

Volcan de Agua, Depart. Zacatepequez, alt. 8000 pp.

M. Jun. 1892. Leg. W. C. Shannon.

## 3707. Gouania tomentosa Jacq.

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 1486. Vitis Caribœa DC.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 2942. Vitis Caribœa DC.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 4117. Vitis microcarpa,

(*Cissus microcarpon Vahl.*)

forma foliis ad nervos venasque præsertim subtus pilosis.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 2956[B]. Vitis rhombifolia Baker.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 1490. Vitis sicyoides Morales

in Repert. fisic.-nat. Cuba, 1866, p. 206,
monente Urban in Botan. Jahrb. xv. 324.
(*Cissus sicyoides L.*)

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 1630[B]. Vitis sicyoides Morales

in Repert. fisic.-nat. Cuba, 1866, p: 206,
monente Urban in Botan. Jahrb. xv. 324.
(*Cissus sicyoides, L.*)

Rio Ocosito, Depart. Quezaltenango, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 2956. Vitis sicyoides Morales

in Repert. fisic.-nat. Cuba, 1866, p. 206,
monente Urban in Botan. Jahrb. xv. 324.
(*Cissus sicyoides, L.*)

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 1685. Vitis sicyoides, Morales,

forma ramis *Puccinea incarcerata*, *Leveille* infestis.

(*Spondylantha aphylla*, *Presl.*)

Boca del Cajabon, Depart. Yzabal, alt. 350 pp.

M. Apr. 1889. Leg. J. D. S.

## 4128. Urvillea ulmacea, Kunth,

forma genuina, Radlk.

in Sitzungsber. K. Bayer. Acad. 1878, p. 264.

determ. Radlkofer.

Volcan Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 2567. Urvillea ulmacea, Kunth,

forma Berteriana, Radlk.

in Sitzungsber. K. Bayer. Acad. 1878, p. 264.

(*U. Berteriana*, *DC.*)

determ. Radlkofer.

Palin, Depart. Amatitlan, alt. 3560 pp.

M. Feb. 1892. Leg. J. D. S.

## 2560. Serjania atrolineata, Sauv. et Wr.

(*S. scatens*, *Radlk. in Serj. Suppl. 216.*)

determ. Radlkofer.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Feb. 1892. Leg. J. D. S.

## 1956. Serjania Grossii, Schlecht.

determ. Radlkofer.

Laguna Amatitlan, Depart. Amatitlan, alt. 3900 pp.

M. Mart. 1890. Leg. J. D. S.

## 2563. Serjania Mexicana, Willd.

determ. Radlkofer.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Feb. 1892. Leg. J. D. S.

## 2559. Serjania rachiptera, Radlk.

in Botan. Gaz. xvi. 192,

forma glabriuscula, Radlk., (uti n. 1907): ramis foliisque glabriusculis, fructus loculis pilis singulis adspersis.

determ. Radlkofer.

La Corona, Depart. Guatemala, alt. 4800 pp.

M. Feb. 1892. Leg. J. D. S.

## 2564. Serjania rachiptera, Radlk.

in Botan. Gaz. xvi. 192.

forma glabriuscula, Radlk., (uti n. 1907): ramis foliisque glabriusculis, fructus loculis pilis singulis adspersis.

determ. Radlkofer.

Capetillo, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 2562. Serjania rachiptera, Radlk.

in Botan. Gaz. xvi. 192.

forma hirtella, Radlk.: ramis, foliis, præsertim subtus, nec non fructus loculis pilis crispis hirtellis.

determ. Radlkofer.

Volcan Acatenango, Depart. Zacatepequez, alt. 6000 pp.

M. Mart. 1892. Leg. J. D. S.

## 2561. Serjania triquetra, Radlk.

in Serj. Monogr. 305.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Feb. 1892. Leg. J. D. S.

## 4130. Serjania triquetra, Radlk.

in Serj. Monogr. 305.

determ. Radlkofer.

Chiapas, Depart. Santa Rosa, alt. 3500 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 400. Cardiospermum grandiflorum, Swz.

San Cristóbal Cucho, Depart. San Márcos, alt. 8444 pp.

M. Jan. 1892. Leg. W. C. Shannon.

## 2566. Paullinia fuscescens, Kunth.

determ. Radlkofer.

San José, Depart. Escuintla, alt. 0 pp.

M. Apr. 1892. Leg. J. D. S.

## 2572. Allophyllus psilospermus, Radlk.

in Sitzungsber. K. Bayer. Acad. 1890, p. 230.

determ. Radlkofer.

Rio Ocosito, Depart. Quezaltenango, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 3955. Thouinia acuminata, Watson

in Proc. Amer. Acad. xxv. 145,

var. pubicalyx, Radlk.

in Botan. Gaz. xviii. 200.

Laguna de Ayarza, Depart. Jalapa, alt. 8400 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4122. Thouinia acuminata, Watson

in Proc. Amer. Acad. xxv. 145,

var. pubicalyx, Radlk.

in Botan. Gaz. xviii. 200.

Volcan Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 3278. Negundo aceroides, Mœnch,

var. Texanum, Pax.

Nebáj, Depart. Quiché, alt. 7000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 2569. Turpinia paniculata, Vent.

determ. Radlkofer.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Apr. 1892. Leg. J. D. S.

## 2575. Turpinia paniculata, Vent.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 3030. Turpinia pinnata, Hemsl.?

(*Lacepedea pinnata*, Schiede ed. Schlecht. in Linnæa x. 240 "flor ignot."? *Turpinia Schiedeana*, Tul. in Ann. sc. n. 3. sér. vii. 296?)

Affinis T. occidentali, Don, a qua differe videtur floribus majoribus. An eadem ut Turpinia sp. n. 5 e Guatemala ab Hemsley in Biol. Centr.-Am. I. 216 indicata? determ. Radlkofer.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3032. Rhus Schiedeana, Schlechtend.?,

forma vestita, Radlk.: ramulis petiolisque pube molli incana vestitis.

determ. Radlkofer.

San Siguan, Depart. Quiché, alt. 5800 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3277. Rhus terebinthifolia, Cham. et Schl.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 4129. Mangifera Indica, L.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 112. Anacardium occidentale, L.,

Las Animas, Depart. Suchitepequez, alt. 650 pp.

M. Sept. 1891. Leg. W. C. Shannon.

## 2883. Anacardium occidentale, L.

Sacabajá, Depart. Quiché, alt. 4000 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 1464. Spondias purpurea, L.

Capetillo, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 1927. Coriaria thymifolia, H. B. K.

Pinula, Depart. Guatemala, alt. 4200 pp.

M. Feb. 1890. Leg. J. D. S.

## 2927. Moringa pterygosperma, Gærtn.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 1476. Rourea glabra, H. B. K.

Rio Ocosito, Depart. Quezaltenango, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 1329. Swartzia grandiflora, Willd.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Feb. 1892. Leg. J. D. S.

## 2821. Enterolobium cyclocarpum, Griseb.

Naranjo, Depart. Escuintla, alt. 300 pp.

M. Mart. 1892. Leg. J. D. S.

## 1471. Chrysobalanus Icaco, L.

Cuyotenango, Depart. Suchitepequez, alt. 1100 pp.

M. Apr. 1892. Leg. J. D. S.

## 3959. Chrysobalanus Icaco, L.

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 2532. Prunus salicifolia, H. B. K.

determ. Focke.

Volcan Acatenango, Depart. Zacatepequez, alt. 6500 pp.

M. Mart. 1892. Leg. J. D. S.

## 3323. Prunus salicifolia, H. B. K.

determ. Focke.

San Miguel Uspantán, Depart. Quiché, alt. 6500 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3034. Helodiscus argenteus, Maxmw.

(*Spiræa argentea, Mutis*), var. bifrons, Focke in Botan. Gaz. xviii. 200.

Nebáj, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux

## 3325. Rubus adenotrichos, Schlecht.

determ. Focke.

San Miguel Uspantán, Depart. Quiché, alt. 10,000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2534. Rubus adenotrichos, Schlecht., var. floribus roseis.

determ. Focke.

Mizco, Depart. Guatemala, alt. 6000 pp.

M. Feb. 1892. Leg. J. D. S.

## 2533. Rubus poliophyllus, Focke in Botan. Gaz. xviii. 202.

(*R. coriifolius*, Focke in Enumer. Pl. Guat. qu. edid. J. D. S. ii. 19; non Liebm.)

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Feb. 1892. Leg. J. D. S.

## 2535. Rubus poliophyllus, Focke in Botan. Gaz. xviii. 202.

(*R. coriifolius*, Focke in Enumer. Pl. Guat. qu. edid. J. D. S. ii. 19; non Liebm.)

Volcan de Fuego, Depart. Zacatepequez, alt. 5500 pp.

M. Mart. 1892. Leg. J. D. S.

## 4178. Rubus poliophyllus, Focke in Botan. Gaz. xviii. 202.

(*R. coriifolius*, Focke in Enumer. Pl. Guat. qu. edid. J. D. S. ii. 19; non Liebm.)

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Nov. 1892. Leg. J. D. S.

## 3326. Rubus superbus, Focke

in Botan. Gaz. xviii. 201.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3631. Rubus trilobus, Moc. et Sess.,

### var. Guatemalensis, Focke

in Botan. Gaz. xviii. 201.

Volcan de Agua, Depart. Zacatepequez, alt. 8000 pp.

M. Jun. 1892. Leg. W. C. Shannon.

## 368. Potentilla heterosepala, Fritsch

in Botan. Jahrb. xi. 314.
determ. Focke.

Chichoy, Depart. Chimaltenango, alt. 9000 pp.

M. Mart. 1892. Leg. W. C. Shannon.

## 3321. Potentilla heterosepala, Fritsch

in Botan. Jahrb. xi. 314.
determ. Focke.

Chiul, Depart. Quiché, alt. 8000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 323. Alchemilla orbiculata, Ruiz et Pav.?

determ. Focke.

Volcan Tajumulco, Depart. San Márcos, alt. 9000 pp.

M. Jan. 1892. Leg. W. C. Shannon.

## 3322. Alchemilla venusta, Cham. et Schl.

### An A. tripartitæ, Ruiz et Pav., var.?

determ. Focke.

San Miguel Uspantán, Depart. Quiché, alt. 8000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2531. Mespilus pubescens, H. B. K.

(*Cratægus pubescens, Steud.; Mespilus Mexicana, C. Koch; Cratægus Mexicana, Moc. et Sess.*)

' determ. Focke.

Las Delicias, Depart. Zacatepequez, alt. 7000 pp.

M. Mart. 1892. Leg. J. D. S.

## 3324. Mespilus pubescens, H. B. K.

(*Cratægus pubescens, Steud.; Mespilus Mexicana, C. Koch; Cratægus Mexicana, Moc. et Sess.*)

' determ. Focke.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 317. Cydonia vulgaris, Pers.

Depart. Huehuetenango, alt. 6200 pp.

1891. Leg. W. C. Shannon.

## 3046. Philadelphus Mexicanus, Schlecht.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3633. Sedum bicolor, H. B. K.?

Volcan de Agua, Depart. Zacatepequez, alt. 9000 ft.

M. Jun. 1892. Leg. W. C. Shannon.

## 2908. Sedum dendroideum, Moc. et Sess.

Nebáj, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2512. Rhizophora Mangle, L.

San José, Depart. Escuintla, alt. 0 pp.

M. Apr. 1892. Leg. J. D. S.

## 2517. Terminalia Catappa, L.

San José, Depart. Escuintla, alt. 0 pp.

M. Apr. 1892. Leg. J. D. S.

## 2984. Psidium Friedrichsthalianum, Bth. et Hk.

(*Calyptrosideum Friedrichsthalianum, Berg.*)

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jul. 1892. Leg. Heyde et Lux.

## 2904. Psidium molle, Bertol.

San Siguan, Depart. Quiché, alt. 5800 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2951. Psidium pomiferum, L.

San Siguan, Depart. Quiché, alt. 5800 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3960. Psidium pomiferum, L.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3047. Myrtus Friedrichsthalii,

(*Ugni Friedrichsthalii, Berg; Eugenia Friedrichsthalii, Hemsl.*),

var. brevipes, Berg.

Chiul, Depart. Quiché, alt. 8000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3465. Pimenta officinalis, Berg,

var. ovalifolia, Berg.

*Pimenta gorda* incolarum.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 4334. Eugenia Jambos, L.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 1470. Centradenia floribunda, Planch.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

513. Centradenia floribunda, Planch.
determ. Cogniaux.
San Martin, Depart. Quezaltenango, alt. 8140 pp.
M. Nov. 1891. Leg. W. C. Shannon.

3332. Centradenia floribunda, Planch.
determ. Cogniaux.
Cunen, Depart. Quiché, alt. 6000 pp.
M. Maj. 1892. Leg. Heyde et Lux.

2645. Centradenia floribunda, Planch.,
var. grandifolia, Cogn. var. nov. ined.
Palin, Depart. Amatitlan, alt. 3560 pp.
M. Feb. 1892. Leg. J. D. S.

2651. Centradenia floribunda, Planch.,
var. grandifolia Cogn. var. nov. ined.
Rio Samalá, Depart. Retalhuleu, alt. 1700 pp.
M. Apr. 1892. Leg. J. D. S.

521. Heeria axillaris, Cogn.
determ. Cogniaux.
Colotenango, Depart. Huehuetenango, alt. 5210 pp.
M. Dec. 1891. Leg. W. C. Shannon.

3768. Heeria macrostachya, Triana.
determ. Cogniaux.
Chiapas, Depart. Santa Rosa, alt. 3500 pp.
M. Sept. 1892. Leg. Heyde et Lux.

860. Heeria subtriplinervia, Triana.
Santiago, Depart. Zacatepequez, alt. 6500 pp.
1891. Leg. Rosalío Gómez.

486. Arthrostemma fragile, Lindl.
determ. Cogniaux.
Primavera, Depart. Sololá, alt. 760 pp.
M. Jul. 1891. Leg. W. C. Shannon.

2652. Arthrostemma fragile, Lindl.
determ. Cogniaux.
Rio Samalá, Depart. Retalhuleu, alt. 1700 pp.
M. Apr. 1892. Leg. J. D. S.

3767. Arthrostemma fragile, Lindl.
determ. Cogniaux.
Chiapas, Depart. Santa Rosa, alt. 3500 pp.
M. Sept. 1892. Leg. Heyde et Lux.

3328. Arthrostemma hirtellum, Cogn. sp. n. ined.
San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.
M. Mart. 1892. Leg. Heyde et Lux.

3766. Pterolepis pumila, Cogn.
determ. Cogniaux.
Pueblo Ralo, Depart. Santa Rosa, alt. 3500 pp.
M. Nov. 1892. Leg. Heyde et Lux.

## 502. Pterolepis trichotoma, Cogn.

determ. Cogniaux.

Rio Samalá, Depart. Retalhuleu, alt. 1140 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 513 B. Tibouchina Bourgæana, Cogn.

in Botan. Gaz. xvi. 4.
determ. Cogniaux.

San Martin, Depart. Quezaltenango, alt. 8140 pp.

M. Nov. 1891. Leg. W. C. Shannon.

## 2648. Tibouchina Bourgæana, Cogn.

in Botan. Gaz. xvi. 4.
determ. Cogniaux.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 3331. Tibouchina Bourgæana, Cogn.

in Botan. Gaz. xvi. 4.
determ. Cogniaux.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 515. Tibouchina Schiedeana, Cogn.

determ. Cogniaux.

San Martin, Depart. Quezaltenango, alt. 8140 pp.

M. Nov. 1891. Leg. W. C. Shannon.

## 509. Monochætum Deppeanum, Naud.

determ. Cogniaux.

San Martin, Depart. Quezaltenango, alt. 8140 pp.

M. Nov. 1891. Leg. W. C. Shannon.

## 3667. Monochætum Deppeanum, Naud.

determ. Cogniaux.

Volcan Pacaya, Depart. Amatitlan, alt. 9000 pp.

M. Jul. 1892. Leg. W. C. Shannon.

## 522. Monochætum tenellum, Naud.

determ. Cogniaux.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 3330. Leandra melanodesma, Cogn.

determ. Cogniaux.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2646. Conostegia superba, D. Don.

determ. Cogniaux.

Barranca de Eminencia, Depart. Amatitlan, alt. 1400 pp.

M. Feb. 1892. Leg. J. D. S.

## 2650. Conostegia viridis, Cogn. sp. nov. ined.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

487. Conostegia viridis, Cogn. n. sp. ined.,
var. angustifolia, Cogn.
Primavera, Depart. Sololá, alt. 760 pp.
M. Jul. 1891. Leg. W. C. Shannon.

3770. Conostegia Xalapensis, D. Don.
determ. Cogniaux.
Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.
M. Sept. 1892. Leg. Heyde et Lux.

497. Conostegia Xalapensis, D. Don,
forma canescens.
determ. Cogniaux.
San Felipe, Depart. Retalhuleu, alt. 2050 pp.
M. Oct. 1891. Leg. W. C. Shannon.

2649. Conostegia Xalapensis, D. Don,
forma canescens.
determ. Cogniaux.
San Felipe, Depart. Retalhuleu, alt. 2050 pp.
M. Apr. 1892. Leg. J. D. S.

2654. Conostegia Xalapensis, D. Don,
forma parvifolia.
determ. Cogniaux.
Alotenango, Depart. Zacatepequez, alt. 4300 pp.
M. Mart. 1892. Leg. J. D. S.

3330[B]. Conostegia Xalapensis, D. Don,
forma parvifolia.
determ. Cogniaux.
Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.
M. Apr. 1892. Leg. Heyde et Lux.

3334. Miconia alpestris, Cogn. sp. nov. ined.
(Aff. M. carneæ, Cogn. in DC. Mon. Phan. vii. 912.)
San Miguel Uspantán, Depart. Quiché, alt. 7500 pp.
M. Apr. 1892. Leg. Heyde et Lux.

3333. Miconia Donnell-Smithii, Cogn.
sp. nov. ined.
(Aff. M. elongatæ, Cogn. in DC. Mon. Phan. vii. 874.)
San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.
M. Apr. 1892. Leg. Heyde et Lux.

3335. Miconia glaberrima, Naud.
determ. Cogniaux.
Chiniqué, Depart. Quiché, alt. 4600 pp.
M. Mart. 1892. Leg. Heyde et Lux.

2655. Miconia Schlimmii, Triana.
determ. Cogniaux.
Rio Sis, Depart. Suchitepequez, alt. 1300 pp.
M. Apr. 1892. Leg. J. D. S.

519[B]. Heterotrichum octonum, DC.
determ. Cogniaux.
Primavera, Depart. Sololá, alt. 760 pp.
M. Jul. 1891. Leg. W. C. Shannon.

## 2647. Clidemia brachystephana, Triana,
### var. longidentata, Cogn.

determ. Cogniaux.

Rio Samalá, Depart. Retalhuleu, alt. 1700 pp.

M. Apr. 1892. Leg. J. D. S.

## 3329. Clidemia glandulifera, Cogn. sp. nov. ined.
(§ *Sagræa.*)

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3327. Clidemia laxiflora, Walp.

determ. Cogniaux.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3343. Cuphea æquipetala, Cav.,
### var. hispida, Kœhne, forma *α.*

determ. Kœhne.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3657. Cuphea æquipetala, Cav.,
### var. hispida, Kœhne.

Volcan Acatenango, Depart. Zacatepequez, alt. 10,000 pp.

M. Aug. 1892. Leg. W. C. Shannon.

## 3336. Cuphea Balsamona, Cham. et Schl.

determ. Kœhne.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 3765. Cuphea Balsamona, Cham. et Schl.

determ. Kœhne.

Chupadero, Depart. Santa Rosa, alt. 5000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 3344. Cuphea Hookeriana, Walp.,
### forma typica.

determ. Kœhne.

Sacabajá, Depart. Quiché, alt. 4000 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 283. Cuphea Hookeriana, Walp.,
### forma foliosa.

determ. Kœhne.

Chiantla, Depart. Huehuetenango, alt. 6300 pp.

M. Dec. 1891. Leg. W. C. Shannon.

## 3764. Cuphea micrantha, H. B. K.

determ. Kœhne.

Rio de Los Esclavos, Depart. Santa Rosa, alt. 2500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3763. Cuphea pinetorum, Benth.

determ. Kœhne.

Rio Pinula, Depart. Santa Rosa, alt. 4000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 3337. Cuphea secundiflora, Sessé et Moc.

Species a cl. Hemsley in Biol. Centr.-Amer. sub nom. C. leptopoda descripta, sed descriptio pluribus notis erronea. Planta juxta Cupheam Wrightii, A. Gray, ponenda, sed ab eadem disco oblique erecto facillime distinguenda. determ. Kœhne.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 3338. Cuphea utriculosa, Kœhne,

var. *a*.

determ. Kœhne.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 3341. Cuphea utriculosa, Kœhne,

var. *a*.

determ. Kœhne.

Rio Negro, Depart. Quiché, alt. 3600 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 403. Cuphea utriculosa, Kœhne,

var. Donnell-Smithii, Kœhne

in Botan. Gaz. xviii. 203.

Primavera, Depart. Sololá, alt. 760 pp.

M. Jul. 1891. Leg. W. C. Shannon.

## 291. Lythrum acinifolium, Moc. et Sess.,

forma grandifolium.

Differt ab exemplaribus adhuc notis floribus paullo majoribus, petalis violaceis. determ. Kœhne.

Chiantla, Depart. Huehuetenango, alt. 6300 pp.

M. Dec. 1891. Leg. W. C. Shannon.

## 3342. Lythrum acinifolium, Moc. et Sess.,

forma grandifolium.

Differt ab exemplaribus adhuc notis floribus paullo majoribus, petalis violaceis. determ. Kœhne.

Cunen, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 277. Lafoensia punicifolia, DC.

Las Animas, Depart. Suchitepequez, alt. 650 pp.

M. Sept. 1891. Leg. W. C. Shannon.

## 4311. Lafoensia punicifolia, DC.

Ab incolis *Palo culebro* dicitur.

Rio de Los Esclavos, Depart. Santa Rosa, alt. 2500 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 2499. Lawsonia inermis, L.

San José, Depart. Escuintla, alt. 0 pp.

M. Apr. 1892. Leg. J. D. S.

## 2467. Lagerstrœmia Indica, L.

Cuyotenango, Depart. Suchitepequez, alt. 1100 pp.

M. Apr. 1892. Leg. J. D. S.

## 252. Jussiæa Peruviana, L.,
### var. glaberrima, Donnell Smith
in Botan. Gaz. xvi. 6.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 2884. Jussiæa pilosa, H. B. K.

Sacabajá, Depart. Quiché, alt. 4000 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 2998[B]. Jussiæa pilosa, H. B. K.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 2995. Jussiæa repens, L.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3963. Jussiæa suffruticosa, L.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 2998. Jussiæa suffruticosa, L.,
### var. (*J. acuminata, Lam.*)

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3620. Œnothera cuprea, Schlecht.

Volcan Acatenango, Depart. Zacatepequez, alt. 12,500 pp.

M. Aug. 1892. Leg. W. C. Shannon.

## 3625. Œnothera cuprea, Schlecht.

Volcan de Agua, Depart. Zacatepequez, alt. 8000 pp.

M. Jun. 1892. Leg. W. C. Shannon.

## 2876. Œnothera rosea, Ait.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 265. Fuchsia arborescens, Sims.

San Martin, Depart. Quezaltenango, alt. 8140 pp.

M. Nov. 1891. Leg. W. C. Shannon.

## 367. Fuchsia arborescens, Sims.

Chichoy, Depart. Chimaltenango, alt. 9000 pp.

M. Mart. 1892. Leg. W. C. Shannon.

## 3000. Fuchsia arborescens, Sims.

San Miguel Uspantán, Depart. Quiché, alt. 6500 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2469. Fuchsia arborescens, Sims,
### var. (?) megalantha, Donnell Smith
in Botan. Gaz. xviii. 2.

Volcan Acatenango, Depart. Zacatepequez, alt. 7000 pp.

M. Mart. 1892. Leg. J. D. S.

## 328. Fuchsia microphylla, H. B. K.

Serchil, Depart. San Márcos, alt. 8500 pp.

M. Jan. 1892. Leg. W. C. Shannon.

## 1460. Fuchsia microphylla, H. B. K.

Volcan de Fuego, Depart. Zacatepequez, alt. 6000 pp.

M. Mart. 1892. Leg. J. D. S.

## 2999. Fuchsia microphylla, H. B. K.

San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3656. Fuchsia minimiflora, Hemsl.

Volcan Acatenango, Depart. Zacatepequez, alt. 7000 pp.

M. Aug. 1892. Leg. W. C. Shannon.

## 3655. Fuchsia mixta, Hemsl.

Volcan de Agua, Depart. Zacatepequez, alt. 9000 pp.

M. Jun. 1892. Leg. W. C. Shannon.

## 2999[B]. Fuchsia parviflora, Zucc.

San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 872. Fuchsia parviflora, Zucc.,

forma vel var. foliis subtus cano-pubescentibus, floribus masculis breviter pedunculatis.

Santiago, Depart. Zacatepequez, alt. 6500 pp.

1891. Leg. Rosalío Gómez.

## 2890. Fuchsia splendens, Zucc.

Chiul, Depart. Quiché, alt. 8000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2527. Hauya elegans, Moç. et Sess.

determ. Hemsley.

Aloetenango, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 2528. Hauya elegans, Moç. et Sess.

determ. Hemsley.

Volcan Acatenango, Depart. Zacatepequez, alt. 5500 pp.

M. Mart. 1892. Leg. J. D. S.

## 2936. Hauya elegans, Moç. et Sess.

determ. Hemsley.

Laguna de Carrizal, Depart. Santa Rosa, alt. 5000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 4336. Hauya elegans, Moç. et Sess.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 2935. Hauya Heydeana, Donnell Smith

in Botan. Gaz. xviii. 3.

Belén, Depart. Alta Verapaz, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 2529. Hauya Rodriguezii, Donnell Smith

in Botan. Gaz. xviii. 3.

Acatepeque, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 3649. Lopezia macrophylla, Benth.

Volcan Acatenango, Depart. Zacatepequez, alt. 8000 pp.

M. Aug. 1892. Leg. W. C. Shannon.

## 3964. Lopezia macrophylla, Benth.

Naranjo, Depart. Santa Rosa. alt. 3500 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 1472. Casearia ramiflora, Vahl.

Caballo Blanco, Depart. Retalhuleu, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 1477. Casearia ramiflora, Vahl.

Rio Ocosito, Depart. Quezaltenango, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 4116. Sclerothrix fasciculata, Presl.

Chupadero, Depart. Santa Rosa, alt. 5000 pp.

M. Oct. 1892. Leg. Heyde et Lux.

## 3598. Turnera cistoides, L.

Cubilguitz, Depart. Alta Verapaz, alt. 1200 pp.

1892. Leg. von Türckheim.

## 3041. Turnera diffusa, Willd.,

**var. aphrodisiaca, Urb.**

Rio Negro, Depart. Quiché, alt. 3600 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 3597. Turnera ulmifolia, L.

Cubilguitz, Depart. Alta Verapaz, alt. 1200 pp.

1892. Leg. von Türckheim.

## 274. Passiflora coriacea, Juss.

Las Animas, Depart. Suchitepequez, alt. 650 pp.

M. Sept. 1891. Leg. W. C. Shannon.

## 3965. Passiflora ligularis, Juss.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 2088. Passiflora macrocarpa, Mast.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Apr. 1890. Leg. J. D. S.

## 2466. Passiflora macrocarpa, Mast.

Cuyotenango, Depart. Suchitepequez, alt. 1100 pp.

M. Apr. 1892. Leg. J. D. S.

## 3092. Passiflora membranacea, Benth.

determ. Masters.

Chiul, Depart. Quiché, alt. 8000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2492. Passiflora ornithoura, Mast.

in Botan. Gaz. xvi. 8.

Capetillo, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 3091. Passiflora sexflora, Juss.

determ. Masters.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3772. Passiflora sicyoides, Cham.? aut n. sp.

determ. Masters.

Casillas, Depart. Santa Rosa, alt. 4000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3777. Passiflora suberosa, L.

determ. Masters.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 115. Carica Papaya, L.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 138. Carica Papaya, L.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Jul. 1891. Leg. W. C. Shannon.

## 159. Carica Papaya, L.

Las Animas, Depart. Suchitepequez, alt. 650 pp.

M. Sept. 1891. Leg. W. C. Shannon.

## 2659. Lagenaria vulgaris, Ser.

determ. Cogniaux.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 2660. Lagenaria vulgaris, Ser.

determ. Cogniaux.

Caballo Blanco, Depart. Retalhuleu, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 480. Luffa cylindrica, Rœm.

determ. Cogniaux.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 4186. Schizocarpum Guatemalense, Cogn.

sp. nov. ined.

Carrizal, Depart. Santa Rosa, alt. 5000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 230. Citrullus vulgaris, Schrad.

("*Forme extrêment reduite.*")

determ. Cogniaux.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 4183. Sicana odorifera, Naud.

Culta. Fructus oblongus, 12-poll.

determ. Cogniaux.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 3776. Cayaponia racemosa, Cogn.,

var. scaberrima, Cogn.

determ. Cogniaux.

Ojo de Agua, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 270. Pittiera grandiflora, Cogn. ined.

(*Cayaponia grandiflora*, Cogn. in DC. Mon. Phan. iii. 779.)

Rio Samalá, Depart. Retalhuleu, alt. 1140 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 4189. Pittiera trilobata, Cogn. sp. nov. ined.

Buena Vista, Depart. Santa Rosa, alt. 5500 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 4188. Echinocystis Coulteri, Cogn.

determ. Cogniaux.

Buena Vista, Depart. Santa Rosa, alt. 5500 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 2657. Elaterium ciliatum, Cogn.

determ. Cogniaux.

Rio Sis, Depart. Suchitepequez, alt. 1300 pp.

M. Apr. 1892. Leg. J. D. S.

## 3774. Elaterium ciliatum, Cogn.

determ. Cogniaux.

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 2656. Elaterium ciliatum, Cogn.,

var. major, Cogn.

determ. Cogniaux.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 4185. Cyclanthera Bourgæana, Cogn.

determ. Cogniaux.

Carrizal, Depart. Santa Rosa, alt. 5000 pp.

M. Jan. 1893. Leg. Heyde et Lux.

## 3345. Cyclanthera Donnell-Smithii, Cogn.

sp. nov. ined.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3771. Cyclanthera multifoliolata, Cogn.

determ. Cogniaux.

Chupadero, Depart. Santa Rosa, alt. 5000 pp.

M. Oct. 1892. Leg. Heyde et Lux.

## 4187. Cyclanthera pedata, Schrad.

determ. Cogniaux.

Carrizal, Depart. Santa Rosa, alt. 5000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 3346. Sicyos Galeottii, Cogn.

determ. Cogniaux.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2661. Sicyos longisepalus, Cogn.

in Botan. Gaz. xvi. 2.
determ. Cogniaux.

Capetillo, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 3775. Sicyos longisepalus, Cogn.

in Botan. Gaz. xvi. 2.
determ. Cogniaux.

Chupadero, Depart. Santa Rosa, alt. 5000 pp.

M. Oct. 1892. Leg. Heyde et Lux.

## 2662. Sechium edule, Swz.

Culta. Ab incolis *Bisquil* dicitur.
determ. Cogniaux.

Amatitlan, Depart. Amatitlan, alt. 3900 pp.

M. Maj. 1892. Leg. J. D. S.

## 4184. Sechium edule, Swz.

Culta. Ab incolis *Bisquil* dicitur.
determ. Cogniaux.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 2501. Rhipsalis Cassytha, Gærtn.

Rio Sis, Depart. Suchitepequez, alt. 1300 pp.

M. Apr. 1892. Leg. J. D. S.

## 3779. Hydrocotyle grumosa, DC.

determ. Rose.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3350. Hydrocotyle Mexicana, Cham. et Schl.

determ. Rose.

Rio Negro, Depart. Quiché, alt. 3600 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 2668. Hydrocotyle prolifera, Kell.

determ. Rose.

Amatitlan, Depart. Amatitlan, alt. 3900 pp.

M. Maj. 1892. Leg. J. D. S.

## 3349. Hydrocotyle prolifera, Kell.

determ. Rose.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3351. Spananthe paniculata, Jacq.

determ. Rose.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 4192. Spananthe paniculata, Jacq.

determ. Rose.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 3356. Eryngium Carlinæ, Delar.

determ. Rose.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3357. Sanicula Mexicana, DC.

determ. Rose.

San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3663. Arracacia Donnell-Smithii, Coult. et Rose

in Botan. Gaz. xv. 261, t. xv.

Volcan de Agua, Depart. Zacatepequez, alt. 10,000 pp.

M. Jun. 1892. Leg. W. C. Shannon.

## 3354. Arracacia Luxeana, Coult. et Rose

in Botan. Gaz. xviii. 55.

San Miguel Uspantán, Depart. Quiché, alt. 8000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3353. Eulophus peucedanoides, Benth. et Hook.

determ. Rose.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 788. Enantiophylla Heydeana, Coult. et Rose

in Botan. Gaz. xviii. 56, t. v.

Santiago, Depart. Zacatepequez, alt. 6500 pp.

1891. Leg. Rosalío Gómez.

## 3352. Enantiophylla Heydeana, Coult. et Rose

in Botan. Gaz. xviii. 56. t. v.

Rio de Los Esclavos, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3347. Coriandrum sativum, L.

determ. Rose.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jul. 1892. Leg. Heyde et Lux.

## 3355. Daucus montanus, Willd.

determ. Rose.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2666. Gilibertia arborea, March.

(*Dendropanax arboreum, Planch. et Dcne.*)

Barranca de Eminencia, Depart. Amatitlan, alt. 1400 pp.

M. Feb. 1892. Leg. J. D. S.

## 3348. Gilibertia arborea, March.

(*Dendropanax arboreum, Planch. et Dcne.*)

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3097. Oreopanax Liebmanni, March.

Floribus masculis 3–9-capitatis.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2667. Oreopanax Salvinii, Hemsl.

Volcan Acatenango, Depart. Zacatepequez, alt. 7500 pp.

M. Mart. 1892. Leg. J. D. S.

## 2513. Oreopanax Sanderianum, Hemsl.

in Gard. Chron. xi. 718; xii. 442, f. 67.

Volcan de Fuego, Depart. Zacatepequez, alt. 6000 pp.

M. Mart. 1892. Leg. J. D. S.

## 4341. Oreopanax Sanderianum, Hemsl.

in Gard. Chron. xi. 718; xii. 442, f. 67.

Casillas, Depart. Santa Rosa, alt. 4000 pp.

M. Jan. 1893. Leg. Heyde et Lux.

## 1905. Oreopanax Taubertianum, Donnell Smith

n. sp. ined.

Barranca de Corona, Depart. Guatemala, alt. 4700 pp.

M. Feb. 1890. Leg. J. D. S.

## 2664. Oreopanax Taubertianum, Donnell Smith

n. sp. ined.

Barranca de Corona, Depart. Guatemala, alt. 4700 pp.

M. Febr. 1892. Leg. J. D. S.

## 3164. Cornus Tolucensis, H. B. K.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2487. Sambucus bipinnata, Cham. et Schl.

Capetillo, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 3042. Viburnum glabratum, H. B. K.

San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 859. Viburnum Hartwegi, Benth.

Santiago, Depart. Zacatepequez, alt. 6500 pp.

1891. Leg. Rosalío Gómez.

## 3977. Bouvardia leiantha, Benth.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 2756. Bouvardia longiflora, H. B. K.

Guatemala, Depart. Guatemala, alt. 5000 pp.

M. Maj. 1892. Leg. J. D. S.

## 3172. Bouvardia longiflora, H. B. K.

San Siguan, Depart. Quiché, alt. 5800 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 4017. Coutarea speciosa, Aubl.

Estanzuela, Depart. Santa Rosa, alt. 2500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 2757. Portlandia Lunæana, H. Baill.

in Hist. des pl. vii. 333.

(*Coutarea Lunœana, H. Baill in Adansonia xii. 301.*)

In hortis Lunanis seminibus a San Jorje (3000 pp.) in Depart. Chimaltenango advectis producta.

Guatemala, Depart. Guatemala, alt. 5000 pp.

M. Maj. 1892. Leg. J. D. S.

## 2758. Rondeletia cordata, Benth.

Volcan de Fuego, Depart. Zacatepequez, alt. 6000 pp.

M. Mart. 1892. Leg. J. D. S.

## 2759. Rondeletia cordata, Benth.

Capetillo, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 2760. Rondeletia cordata, Benth.

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Febr. 1892. Leg. J. D. S.

## 3167. Rondeletia strigosa, Hemsl.

Santa Rosa, Depart. Santa Rosa, alt. 3500 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3614. Rondeletia strigosa, Hemsl.

Volcan de Agua, Depart. Zacatepequez, alt. 10,400 pp.

M. Aug. 1892. Leg. W. C. Shannon.

## 2753. Lindenia rivalis, Benth.

Rio Ocosito, Depart. Quezaltenango, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 3646. Lindenia rivalis, Benth.

Rio Guacalate, Depart. Escuintla, alt. 1000 pp.

M. Jul. 1892. Leg. W. C. Shannon.

## 3038. Deppea floribunda, Hemsl.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 371. Mallostoma Shannoni, Donnell Smith

in Botan. Gaz. xviii. 203.

Chicoy, Depart. Chimaltenango, alt. 9000 pp.

M. Mart. 1892. Leg. W. C. Shannon.

## 3176. Mallostoma Shannoni, Donnell Smith

in Botan. Gaz. xviii. 203.

San Miguel Uspantán, Depart. Quiché, alt. 7500 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 222. Gonzalea Panamensis, Pers.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 241. Gonzalea spicata, DC.

Primavera, Depart. Sololá, alt. 760 pp.

M. Jul. 1891. Leg. W. C. Shannon.

## 130. Hamelia patens, Jacq.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 202. Hamelia patens, Jacq.

Rio Samalá, Depart. Retalhuleu, alt. 1100 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 391. Hamelia patens, Jacq.

Rio Bravo, Depart. Sololá, alt. 460 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 3159. Hamelia patens, Jacq.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jul. 1892. Leg. Heyde et Lux.

## 2747. Hoffmannia macrophylla, Hemsl.?

Acatepeque, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 3169. Hoffmannia Mexicana, Hemsl.?

San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3169B. Hoffmannia rotata, Donnell Smith

in Botan. Gaz. xviii. 204.

San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3174. Hoffmannia rotata, Donnell Smith

in Botan. Gaz. xviii. 204.

San Miguel Uspantan, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 127. Alibertia edulis, A. Rich.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 3986. Alibertia edulis, A. Rich.

Carrizal, Depart. Santa Rosa, alt. 5000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 2752. Basanacantha spinosa, Schum.,

var. (*B. calycina, Schum.*)

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Mart. 1892. Leg. J. D. S.

## 3166. Randia Xalapensis, Mart. et Gal.

Flores steriles pollicares et ultra, fertiles vix 4-lineares.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 2524. Genipa Americana, L.?

Volcan Acatenango, Depart. Zacatepequez, alt. 7000 pp.

M. Mart. 1892. Leg. J. D. S.

## 3978. Genipa Caruto, H. B. K.

Cenaguilla, Depart. Santa Rosa, alt. 4000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3160. Guettarda macrosperma, Donnell Smith

in Botan. Gaz. xviii. 204.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3973. Chiococca macrocarpa, Mart. et Gal.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 2750. Palicourea Mexicana, Benth.

Acatepeque, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 3000B. Palicourea Mexicana, Benth.

San Miguel Uspantán, Depart. Quiché, alt. 6500 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2746. Geophila reniformis, Don.

Barranca de Eminencia, Depart. Amatitlan, alt. 1400 pp.

M. Feb. 1892. Leg. J. D. S.

## 1133. Cephælis tomentosa, Willd.

Depart. Peten.

1889. Leg. R. Walker.

## 3048. Nertera depressa, Banks et Sol.

Chiul, Depart. Quiché, alt. 8000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3179. Diodia rigida, Cham. et Schl.

Rio Negro, Depart. Quiché, alt. 3600 pp.

M. Mart. 1892. Leg. Heyde et Lux.

227. Crusea calocephala, DC.
Santa Barbara, Depart. Sololá, alt. 1370 pp.
M. Aug. 1891. Leg. W. C. Shannon.

2954. Crusea calocephala, DC.
Rio Negro, Depart. Quiché, alt. 3600 pp.
M. Apr. 1892. Leg. Heyde et Lux.

93. Borreria lævis, Griseb.
Primavera, Depart. Sololá, alt. 760 pp.
M. Aug. 1891. Leg. W. C. Shannon

3579. Richardsonia scabra, St. Hil.
Cubilguitz, Depart. Alta Verapaz, alt. 1200 pp.
1892. Leg. von Türckheim.

3984. Richardsonia scabra, St. Hil.
Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.
M. Aug. 1892. Leg. Heyde et Lux.

3975. Relbunium hypocarpium, Hemsl.
Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.
M. Sept. 1892. Leg. Heyde et Lux.

1466. Valeriana Mikaniæ, Lindl.
San Felipe, Depart. Retalhuleu, alt. 2050 pp.
M. Apr. 1892. Leg. J. D. S.

2924. Valeriana Mikaniæ, Lindl.
San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.
M. Apr. 1892. Leg. Heyde et Lux.

3969. Valeriana scorpioides, DC.
Estanzuela, Depart. Santa Rosa, alt. 2500 pp.
M. Aug. 1892. Leg. Heyde et Lux.

3970. Valeriana sorbifolia, H. B. K.
Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.
M. Sept. 1892. Leg. Heyde et Lux.

3968. Valeriana sorbifolia, H. B. K.
Estanzuela, Depart. Santa Rosa, alt. 2500 pp.
M. Aug. 1892. Leg. Heyde et Lux.

347. Vernonia Salvinæ, Hemsl.
determ. Coulter.
Coatepeque, Depart. San Márcos, alt. 1490 pp.
M. Jan. 1892. Leg. W. C. Shannon.

3816. Elephantopus spicatus, B. Juss.
determ. Coulter.
Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.
M. Sept. 1892. Leg. Heyde et Lux.

3781. Ageratum conyzoides, L.
determ. Coulter.
Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.
M. Sept. 1892. Leg. Heyde et Lux.

## 3780. Stevia nepetæfolia, H. B. K.

determ. Coulter.

Ojo de Agua, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3002. Eupatorium leucocephalum, Benth.

San Miguel Uspantán, Depart. Quiché, alt. 7500 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3690. Aplopappus stoloniferus, DC.

determ. Coulter.

Volcan Acatenango, Depart. Zacatepequez, alt. 14,400 pp.

M. Aug. 1892. Leg. W. C. Shannon.

## 3697. Aplopappus stoloniferus, DC.,

### var. glabratus, Coulter

in Botan. Gaz. xvi. 98.

determ. Coulter.

Volcan de Agua, Depart. Zacatepequez, alt. 12,000 pp.

M. Jun. 1892. Leg. W. C. Shannon.

## 3809. Elvira biflora, Cass.

determ. Coulter.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4110. Milleria quinqueflora, L.

determ. Coulter.

Chupadero, Depart. Santa Rosa, alt. 5000 pp.

M. Oct. 1892. Leg. Heyde et Lux.

## 3791. Eclipta alba, Hassk.

determ. Coulter.

Laguna de Ayarza, Depart. Jalapa, alt. 3000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3797. Zexmenia Salvinii, Hemsl.

determ. Coulter.

Cenaguilla, Depart. Santa Rosa, alt. 4000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 3815. Viguiera dentata, Spreng.

determ. Coulter.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3796. Spilanthes sessilifolia, Hemsl.

determ. Coulter.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 3814. Synedrella vialis, Gray.

determ. Coulter.

Chiapas, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3792. Coreopsis Mexicana, Hemsl.

determ. Coulter.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3692. Dahlia coccinea, Cav.

determ. Coulter.

Volcan de Agua, Depart. Zacatepequez, alt. 8500 pp.

M. Aug. 1892. Leg. W. C. Shannon.

## 3803. Dahlia coccinea, Cav.

determ. Coulter.

Cenaguilla, Depart. Santa Rosa, alt. 4000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3793. Cosmos caudatus, H. B. K.

determ. Coulter.

Rio de Las Cañas, Depart. Santa Rosa, alt. 3000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3788. Bidens pilosa, L.

determ. Coulter.

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3811. Chrysanthellum procumbens, Rich.

determ. Coulter.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3800. Galinsoga parviflora, Cav.

determ. Coulter.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 4199. Calea integrifolia, Hemsl.

determ. Coulter.

Teocinte, Depart. Santa Rosa, alt. 2500 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 3782. Calea salmeæfolia, Hemsl.

determ. Coulter.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3790. Calea urticæfolia, DC.

determ. Coulter.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3813. Dysodia grandiflora, DC.

determ. Coulter.

Rio de Las Cañas, Depart. Santa Rosa, alt. 3000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 3787. Dysodia porophylla, DC.

determ. Coulter.

Ojo de Agua, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3795. Tagetes filifolia, Lag.

determ. Coulter.

Carrizal, Depart. Santa Rosa, alt. 5000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 4231. Tagetes patula, L.

determ. Coulter.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 3696. Tagetes subulata, Llav. et Lex.

determ. Coulter.

Rio Paz, Depart. Jutiapa, alt. 1200 pp.

M. Oct. 1892. Leg. W. C. Shannon.

## 4245. Tagetes subulata, Llav. et Lex.

determ. Coulter.

Cenaguilla, Depart. Santa Rosa, alt. 4000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 2872. Centropogon affinis, Mart. et Gal.

determ. Robinson.

San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 267. Centropogon cordifolius, Benth.

(*Siphocampylus Guatemalensis, Vatke.*)

Depart. Totonicapán, alt. 8000 pp.

M. Nov. 1891. Leg. W. C. Shannon.

## 2997. Centropogon cordifolius, Benth.

determ. Robinson.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 290. Lobelia laxiflora, H. B. K.

Depart. Huehuetenango, alt. 6200 pp.

M. Dec. 1891. Leg. W. C. Shannon.

## 2996. Lobelia laxiflora, H. B. K., var. rigidula, H. B. K.

determ. Robinson.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3817. Lobelia ruderalis, Willd. apud Rœm. et Schult.

(*L. micrantha, H. B. K.*)

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4257. Lobelia ruderalis, Willd. apud Rœm. et Schult.

(*L. micrantha, H. B. K.*)

Estanzuela, Depart. Santa Rosa, alt. 2500 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 4256. Lobelia splendens, Willd.

Ojo de Agua, Depart. Santa Rosa, alt. 3500 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 1458. Heterotoma lobelioides, Zucc.

Volcan de Fuego, Depart. Zacatepequez, alt. 5500 pp.

M. Mart. 1892. Leg. J. D. S.

## 2482. Heterotoma lobelioides, Zucc.

Volcan Acatenango, Depart. Zacatepequez, alt. 6000 pp.

M. Mart. 1892. Leg. J. D. S.

## 292. Arbutus varians, Benth.

Chiantla, Depart. Huehuetenango, alt. 6300 pp.

M. Dec. 1891. Leg. W. C. Shannon.

## 3185. Arbutus varians, Benth.

San Martin Jilotepeque, Depart. Chimaltenango, alt. 6000 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 3183. Arctostaphylos arbutoides, Hemsl.

San Miguel Uspantán, Depart. Quiché, alt. 6500 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 322. Pernettya coriacea, Klotzsch?

Volcan Tajumulco, Depart. San Márcos, alt. 11,000 pp.

M. Jan. 1892. Leg. W. C. Shannon.

## 3182. Gaultheria odorata, H. B. K.,

var. Mexicana, DC.

San Miguel Uspantán, Depart. Quiché, alt. 6500 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 795. Chimaphila maculata, Pursh.

Santiago, Depart. Zacatepequez, alt. 6500 pp.

1891. Leg. Rosalío Gómez.

## 1316. Clethra lanata, Mart. et Gal.

Palin, Depart. Amatitlan, alt. 3560 pp.

M. Febr. 1892. Leg. J. D. S.

## 2507. Clethra lanata, Mart. et Gal.

Alotenango, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 3181. Clethra lanata, Mart. et Gal.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 4338. Clethra suaveolens, Turcz.

Carrizal, Depart. Santa Rosa, alt. 5000 pp.

M. Jan. 1893. Leg. Heyde et Lux.

## 1452. Myrsine myricoides, Schlecht.

Volcan Acatenango, Depart. Zacatepequez, alt. 5500 pp.

M. Mart. 1892. Leg. J. D. S.

## 2909. Parathesis calophylla, Donnell Smith

in Botan. Gaz. xviii. 205.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 1330. Parathesis crenulata, Hook. fil.,
### var. ferruginea, Œrst.

Barranca de Eminencia, Depart. Amatitlan, alt. 1400 pp.

M. Feb. 1892. Leg. J. D. S.

## 1489. Parathesis crenulata, Hook. fil.,
### var. ferruginea, Œrst.

Barranca del Samalá, Depart. Retalhuleu, alt. 1700 pp.

M. Apr. 1892. Leg. J. D. S.

## 3020. Parathesis micranthera, Donnell Smith

in Botan. Gaz. xviii. 205.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 1449. Ardisia compressa, H. B. K.

Acatepeque, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 3989. Ardisia compressa, H. B. K.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 2465. Ardisia paschalis, Donnell Smith

*Chilil* incolarum. n. sp. ined.

Cuyotenango, Depart. Suchitepequez, alt. 1100 pp.

M. Apr. 1892. Leg. J. D. S.

## 3023. Ardisia paschalis, Donnell Smith

*Chilil* incolarum. n. sp. ined.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3988. Ardisia paschalis, Donnell Smith

*Chilil* incolarum. n. sp. ined.

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 170. Ardisia pellucida, Œrst.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 2485. Ardisia venosa, Mast.

in Botan. Gaz. xviii. 205.

Volcan Acatenango, Depart. Zacatepequez, alt. 7000 pp.

M. Mart. 1892. Leg. J. D. S.

## 3021. Ardisia venosa, Mast.

in Botan. Gaz. xviii. 205.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 229. Jacquinia axillaris, Œrst.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

2497. Jacquinia axillaris, Œrst.

San José, Depart. Escuintla, alt. 0 pp.

M. Apr. 1892. Leg. J. D. S.

2497[B]. Jacquinia axillaris, Œrst.

In hortis culta.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

4363. Lucuma mammosa, Gærtn.

*Sapote* incolarum.

Teocinte, Depart. Santa Rosa, alt. 2500 pp.

M. Jan. 1892. Leg. Heyde et Lux.

2508. Sideroxylon mastichodendron, Jacq.

Amatitlan, Depart. Amatitlan, alt. 3900 pp.

M. Maj. 1892. Leg. J. D. S.

3068. Achras Sapota, L.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

1451. Bumelia leiogyna, Donnell Smith

in Botan. Gaz. xviii. 4.

Capetillo, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

2915. Styrax conterminum, Donnell Smith

in Botan. Gaz. xviii. 5.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

2772. Thevetia neriifolia, Juss.

Amatitlan, Depart. Amatitlan, alt. 3900 pp.

M. Maj. 1892. Leg. J. D. S.

3995. Thevetia neriifolia, Juss.

Cenaguilla, Depart. Santa Rosa, alt. 4000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

209. Aspidosperma megalocarpon, Müll. Arg.

Rio Samalá, Depart. Retalhuleu, alt. 1100 pp.

M. Oct. 1891. Leg. W. C. Shannon.

1076. Aspidosperma megalocarpon, Müll. Arg.

Depart. Peten.

1889. Leg. R. Walker.

2475. Aspidosperma megalocarpon, Müll. Arg.

*Chichique* incolarum.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Apr. 1892. Leg. J. D. S.

2476. Aspidosperma megalocarpon, Müll. Arg.

*Chichique* incolarum.

Rio Sis, Depart. Suchitepequez, alt. 1300 pp.

M. Apr. 1892. Leg. J. D. S.

## 233. Vinca rosea, L.

Santa Barbara, Depart. Sololá, alt. 1370 pp.
M. Aug. 1891. Leg. W. C. Shannon.

## 2768. Plumeria acutifolia, Poir.

Cuyotenango, Depart. Suchitepequez, alt. 1100 pp.
M. Apr. 1892. Leg. J. D. S.

## 2769. Plumeria lutea, Ruiz et Pav.

Cuyotenango, Depart. Suchitepequez, alt. 1100 pp.
M. Apr. 1892. Leg. J. D. S.

## 2767. Plumeria Mexicana, Lodd.

Caballo Blanco, Depart. Retalhuleu, alt. 250 pp.
M. Apr. 1892. Leg. J. D. S.

## 2959. Plumeria rubra, L.

Santa Rosa, Depart. Santa Rosa, alt. 2500 pp.
M. Maj. 1892. Leg. Heyde et Lux.

## 2770. Plumeria rubra, L.

Cuyotenango, Depart. Suchitepequez, alt. 1100 pp.
M. Apr. 1892. Leg. J. D. S.

## 2771. Plumeria rubra, L.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.
M. Apr. 1892. Leg. J. D. S.

## 2766. Tabernæmontana arborea, Rose

in Botan. Gaz. xviii. 206.
Rio Ocosito, Depart. Quezaltenango, alt. 250 pp.
M. Apr. 1892. Leg. J. D. S.

## 120. Tabernæmontana Donnell-Smithii, Rose

in Botan. Gaz. xviii. 206.
*Copal* incolarum.
Primavera, Depart. Sololá, alt. 760 pp.
M. Aug. 1891. Leg. W. C. Shannon.

## 152. Tabernæmontana Donnell-Smithii, Rose

in Botan. Gaz. xviii. 206.
*Copal* incolarum.
Santa Barbara, Depart. Sololá, alt. 1370 pp.
M. Aug. 1891. Leg. W. C. Shannon.

## 155. Tabernæmontana Donnell-Smithii, Rose

in Botan. Gaz. xviii. 206.
*Copal* incolarum.
Las Animas, Depart. Suchitepequez, alt. 650 pp.
M. Sept. 1891. Leg. W. C. Shannon.

## 2762. Tabernæmontana Donnell-Smithii, Rose

in Botan. Gaz. xviii. 206.
*Copal* incolarum.
Barranca de Eminencia, Depart. Amatitlan, alt. 1400 pp.
M. Feb. 1892. Leg. J. D. S.



Mo. Bot. Garden,
1893

## 2764. Tabernæmontana Donnell-Smithii, Rose

in Botan. Gaz. xviii. 206.

*Copal* incolarum.

Naranjo, Depart. Escuintla, alt. 300 pp.

M. Mart. 1892. Leg. J. D. S.

## 3161. Prestonia Mexicana, A. DC.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Maj. 1892. Leg. Heyde et Lux

## 3992. Echites microcalyx, A. DC.

Cenaguilla, Depart. Santa Rosa, alt. 4000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3994. Echites trifida, Jacq.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 777. Echites triflora, Mart. et Gal.

Santiago, Depart. Zacatepequez, alt. 6500 pp.

1891. Leg. Rosalío Gómez.

## 3993. Echites tubiflora, Mart. et Gal.

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 218. Mandevilla Moritziana?

(*Amblyanthera Moritziana, Muell. Arg.?*)

Rio Samalá, Depart. Retalhuleu, alt. 1100 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 251. Mandevilla Moritziana?

(*Amblyanthera Moritziana, Muell. Arg.?*)

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 169. Philibertia crassifolia, Hemsl.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 399. Philibertia crassifolia, Hemsl.

Rio Najualá, Depart. Suchitepequez, alt. 377 pp.

M. Sept. 1891. Leg. W. C. Shannon.

## 2778. Philibertia crassifolia, Hemsl.

Amatitlan, Depart. Amatitlan, alt. 3900 pp.

M. Maj. 1892. Leg. J. D. S.

## 787. Philibertia refracta, Donnell Smith

in Botan. Gaz. xviii. 207.

Santiago, Depart. Zacatepequez, alt. 6500 pp.

1891. Leg. Rosalío Gómez.

## 4000. Oxypetalum riparium, Kunth.

Ojo de Agua, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3998. Asclepias auriculata, H. B. K.

Carrizal, Depart. Santa Rosa, alt. 5000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 143. Asclepias Curassavica, L.

Primavera, Depart. Sololá, alt. 760 pp.

M. Jul. 1891. Leg. W. C. Shannon.

## 188. Asclepias Curassavica, L.

San Martin, Depart. Retalhuleu, alt. 1500 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 3583. Asclepias Curassavica, L.

Cubilguitz, Depart. Alta Verapaz, alt. 1200 pp.

1892. Leg. von Türckheim.

## 2777. Asclepias Curassavica, L.,

forma corollis luteis cum coronæ squamis concoloribus.

Amatitlan, Depart. Amatitlan, alt. 3900 pp.

M. Maj. 1892. Leg. J. D. S.

## 809. Asclepias Guatemalensis, Donnell Smith

in Botan. Gaz. xviii. 207.

Santiago, Depart. Zacatepequez, alt. 6500 pp.

1891. Leg. Rosalío Gómez.

## 3187. Asclepias rosea, H. B. K.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 3060. Metastelma pedunculare, Dcne.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 4113. Blepharodon mucronatum, Dcne.

Ojo de Agua, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3848. Vincetoxicum sepium, Dcne.

Los Esclavos, Depart. Santa Rosa, alt. 2500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3999. Dictyanthus ceratopetalus, Donnell Smith

in Botan. Gaz. xviii. 208.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 4002. Gonolobus barbatus, H. B. K.

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4005. Gonolobus erianthus, Dcne.

Cenaguilla, Depart. Santa Rosa, alt. 4000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4005. Gonolobus macranthus, Kunze.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4003. Gonolobus Salvinii, Hemsl.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4007. Gonolobus Salvinii, Hemsl.

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 2776. Lachnostoma lasiostemma, Hemsl.

Amatitlan, Depart. Amatitlan, alt. 3900 pp.

M. Maj. 1892. Leg. J. D. S.

## 4004. Fimbristemma stenosepala, Donnell Smith

in Botan. Gaz. xviii. 208.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 2773. Marsdenia maculata, Hook.

La Corona, Depart. Guatemala, alt. 5000 pp.

M. Feb. 1892. Leg. J. D. S.

## 2775. Marsdenia Mexicana, Dcne.

Volcan de Fuego, Depart. Zacatepequez, alt. 5000 pp.

M. Mart. 1892. Leg. J. D. S.

## 2774. Marsdenia propinqua, Hemsl.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Mart. 1892. Leg. J. D. S.

## 70. Spigelia Humboldtiana, Cham. et Schl.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 71. Spigelia Humboldtiana, Cham. et Schl.

Primavera, Depart. Sololá, alt. 760 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 392. Spigelia Humboldtiana, Cham. et Schl.

Las Animas, Depart. Suchitepequez, alt. 650 pp.

M. Sept. 1891. Leg. W. C. Shannon.

## 2955. Buddleia Americana, L.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3996. Buddleia Americana, L.

Pueblo Ralo, Depart. Santa Rosa, alt. 3500 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 2473. Buddleia floccosa, Kunth.

Capetillo, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 2888. Buddleia lanceolata, Benth.

Chiul, Depart. Quiché, alt. 8000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2921. Leianthus brevidentatus, Hemsl.

Rio Negro, Depart. Quiché, alt. 3600 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 4008. Erythræa divaricata, Schaffn.

Chiapas, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4009. Schultesia stenophylla, Mart.

Barberena, Depart. Santa Rosa, alt. 3000 pp

M. Sept. 1892. Leg. Heyde et Lux.

## 4369. Schultesia stenophylla, Mart.

Naranjo, Depart. Santa Rosa, alt. 3500 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 3613. Halenia gracilis, Griseb.

Volcan de Agua, Depart. Zacatepequez, alt. 12,400 pp.

M. Aug. 1892. Leg. W. C. Shannon.

## 3630. Halenia gracilis, Griseb.

Volcan de Agua, Depart. Zacatepequez, alt. 8000 pp.

M. Jun. 1892. Leg. W. C. Shannon.

## 4380. Læselia ciliata, L.

Buena Vista, Depart. Santa Rosa, alt. 5500 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 288. Læselia glandulosa, Don.

Depart. Huehuetenango, alt. 6200 pp.

M. Dec. 1891. Leg. W. C. Shannon.

## 375. Læselia glandulosa, Don.

Coban, Depart. Alta Verapaz, alt. 4400 pp.

M. Feb. 1879. Leg. von Türckheim.

## 3987. Cobæa triflora, Donnell Smith

in Botan. Gaz. xiii. 75.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 2937. Wigandia Caracasana, H. B. K.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Maj. 1892. Leg. Heyde et Lux

## 2926. Nama Jamaicensis, L.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 1163. Hydrolea spinosa, L.

Depart. Peten.

1889. Leg. R. Walker.

## 2944. Hydrolea spinosa, L.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 4365. Cordia Gerascanthus, Jacq.

Carrizal, Depart. Santa Rosa, alt. 5000 pp.

M. Jan. 1893. Leg. Heyde et Lux.

## 1229. Bourreria grandiflora, Bertol.

In hortos Salvadoris Herreræ ill. Custodis Thesauri transvecta.

Portal, Depart. Zacatepequez, alt. 5000 pp.

M. Feb. 1892. Leg. J. D. S.

## 3065. Ehretia Luxiana, Donnell Smith

in Botan. Gaz. xviii. 5.

*Pepi Nanci* incolarum.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3991. Heliotropium fruticosum, L.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 3990. Heliotropium Indicum, L.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3043. Echinospermum Mexicanum, Hemsl.

San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 812. Lithospermum discolor, Mart. et Gal.

Santiago, Depart. Zacatepequez, alt. 6500 pp.

1891. Leg. Rosalío Gómez.

## 405. Ipomœa Bona-nox, L.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 412[B]. Ipomœa Bona-nox, L.

Rio Samalá, Depart. Retalhuleu, alt. 1140 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 3606. Ipomœa coccinea, L.

Rio Paz, Depart. Jutiapa, alt. 1200 pp.

M. Oct. 1892. Leg. W. C. Shannon.

## 417. Ipomœa murucoides, Rœm. et. Sch.

Canibal, Depart. Huehuetenango, alt. 3180 pp.

M. Dec. 1891. Leg. W. C. Shannon.

## 408. Ipomœa tuberosa, L.

Primavera, Depart. Sololá, alt. 760 pp.

M. Jul. 1891. Leg. W. C. Shannon.

## 409. Ipomœa tuberosa, L.

San Sebastian, Depart. Retalhuleu, alt. 1000 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 4350. Ipomœa tyrianthina, Lindl.

Chiapas, Depart. Santa Rosa, alt. 3500 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 1273. Ipomœa umbellata, G. F. W. Mey.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Feb. 1892. Leg. J. D. S.

## 3610. Jacquemontia violacea, Choisy,

var. Guatemalensis, Meisn.

Chingo, Depart. Jutiapa, alt. 1000 pp.

M. Oct. 1892. Leg. W. C. Shannon.

## 4111. Convolvulus nodiflorus, Desv.

Rio de Los Esclavos, Depart. Santa Rosa, alt. 2500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3608. Evolvulus alsinoides, L.

Volcan Flores, Depart. Jutiapa, alt. 2500 pp.

M. Oct. 1892. Leg. W. C. Shannon.

## 2986. Evolvulus alsinoides, L.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jul. 1892. Leg. Heyde et Lux.

## 4028. Evolvulus linifolius, L.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3054. Evolvulus nummularia, L.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3584. Evolvulus sericeus, Swz.

Cubilguitz, Depart. Alta Verapaz, alt. 1200 pp.

1892. Leg. von Türckheim.

## 2963. Evolvulus sericeus, Swz.,

var. discolor, A. Gray.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 75. Cuscuta corymbosa, Ruiz et Pav.,

var. grandiflora, Engelm.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 623. Solanum Donnell-Smithii, Coult.

in Botan. Gaz. xvi. 144.

Las Animas, Depart. Suchitepequez, alt. 650 pp.

M. Sept. 1891. Leg. W. C. Shannon.

## 2672. Solanum Donnell-Smithii, Coult.

in Botan. Gaz. xvi. 144.

Rio Ocosito, Depart. Quezaltenango, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 2671. Solanum Donnell-Smithii, Coult.

in Botan. Gaz. xvi. 144.

Rio Samalá, Depart. Retalhuleu, alt. 1700 pp.

M. Apr. 1892. Leg. J. D. S.

## 3820. Solanum mammosum, L.

determ. Coulter.

Estanzuela, Depart. Santa Rosa, alt. 2500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 4258. Solanum mammosum, L.

determ. Coulter.

Rinconcito, Depart. Santa Rosa, alt. 4000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 4105. Solanum nudum, H. B. K.

determ. Coulter.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 2673. Solanum olivæforme, Donnell Smith

in Botan. Gaz. xiv. 28; xv. 28; xvi, t. ii.

Barranca del Samalá, Depart. Retalhuleu, alt. 1700 pp.

M. Apr. 1892. Leg. J. D. S.

## 3819. Solanum torvum, Swz.

determ. Coulter.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 4018. Physalis nicandroides, Schlecht.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3039. Acnistus arborescens, Schlecht.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 139. Datura Stramonium, L.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 2932. Datura Tatula, L.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 1467. Juanulloa Sargii, Donnell Smith

in Botan. Gaz. xviii. 5, t. i.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Mart. 1892. Leg. J. D. S.

## 3643. Cestrum aurantiacum, Lindl.

Chimente, Depart. Totonicapán, alt. 7500 pp.

M. Jun. 1892. Leg. W. C. Shannon.

## 4358. Cestrum lanatum, Mart. et Gal.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 2916. Nicotiana plumbaginifolia, Viv.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 296. Nicotiana Tabacum, L.

Colotenango, Depart. Huehuetenango, alt. 5200 pp.

M. Dec. 1891. Leg. W. C. Shannon.

## 2902. Ghiesbreghtia grandiflora, A. Gray.

Arbor 18–25-pedalis.

San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 1306. Calceolaria Mexicana, Benth.

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Febr. 1892. Leg. J. D. S.

## 3130. Maurandia scandens, A. Gray.

San Miguel Uspantan, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3617. Pentstemon gentianoides, Don.

Volcan Acatenango, Depart. Zacatepequez, alt. 11,000 pp.

M. Aug. 1892. Leg. W. C. Shannon.

## 271. Russellia sarmentosa, Jacq.

Rio Samalá, Depart. Retalhuleu, alt. 1100 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 2943. Russellia sarmentosa, Jacq.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 289. Berendtia rugosa, A. Gray.

Chiantla, Depart. Huehuetenango, alt. 6300 pp.

M. Dec. 1891. Leg. W. C. Shannon.

## 3113. Berendtia rugosa, A. Gray.

San Miguel Uspantán, Depart. Quiché, alt. 6500 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 878. Leucocarpus alatus, Don.

Santiago, Depart. Zacatepequez, alt. 6500 pp.

1891. Leg. Rosalío Gómez.

## 3045. Leucocarpus alatus, Don.

San Miguel Uspantán, Depart. Quiche, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3059. Stemodia parviflora, Ait.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 3049. Herpestis chamædryoides, H. B. K.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.
M. Apr. 1892. Leg. Heyde et Lux.

## 4012. Scoparia dulcis, L.

Estanzuela, Depart. Santa Rosa, alt. 2500 pp.
M. Aug. 1892. Leg. Heyde et Lux.

## 2519. Capraria biflora, L.

Guatemala, Depart. Guatemala, alt. 5000 pp.
M. Maj. 1892. Leg. J. D. S.

## 2931. Capraria biflora, L.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.
M. Jun. 1892. Leg. Heyde et Lux.

## 791. Escobedia scabrifolia, Ruiz et Pav.

Santiago, Depart. Zacatepequez, alt. 6500 pp.
1891. Leg. Rosalío Gómez.

## 3618. Escobedia scabrifolia, Ruiz et Pav.

Volcan de Agua, Depart. Zacatepequez, alt. 8000 pp.
M. Aug. 1892. Leg. W. C. Shannon.

## 3057. Escobedia scabrifolia, Ruiz et Pav.

Joyabáj, Depart. Quiché, alt. 4500 pp.
M. Aug. 1892. Leg. Heyde et Lux.

## 314. Buchnera Mexicana, Hemsl.

Amatenango, Depart. Huehuetenango, alt. 7000 pp.
M. Dec. 1891. Leg. W. C. Shannon.

## 4010. Buchnera Mexicana, Hemsl.

Naranjo, Depart. Santa Rosa, alt. 3500 pp.
M. Sept. 1892. Leg. Heyde et Lux.

## 3652. Buchnera pilosa, Benth.

Volcan de Agua, Depart. Zacatepequez, alt. 8000 pp.
M. Aug. 1892. Leg. W. C. Shannon.

## 4011. Buchnera pilosa, Benth.

Estanzuela, Depart. Santa Rosa, alt. 2500 pp.
M. Aug. 1892. Leg. Heyde et Lux.

## 3651. Gerardia peduncularis, Benth.

Volcan de Agua, Depart. Zacatepequez, alt. 8000 pp.
M. Aug. 1892. Leg. W. C. Shannon.

## 835. Gerardia peduncularis, Benth.

Santiago, Depart. Zacatepequez, alt. 6500 pp.
1891. Leg. Rosalío Gómez.

## 1465. Castilleja communis, Benth.

Capetillo, Depart. Zacatepequez, alt. 4300 pp.
M. Mart. 1892. Leg. J. D. S.

## 2878. Castilleja communis, Benth.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.
M. Apr. 1892. Leg. Heyde et Lux.

## 3647. Castilleja pectinata, Mart. et Gal.

Los Encuentros, Depart. Sololá, alt. 9500 pp.
M. Jun. 1892. Leg. W. C. Shannon.

## 4016. Lamourouxia cordata, Cham. et Schl.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.
M. Sept. 1892. Leg. Heyde et Lux.

## 3100. Lamourouxia lanceolata, Benth.

San Miguel Uspantán, Depart. Quiché, alt. 6500 pp.
M. Apr. 1892. Leg. Heyde et Lux.

## 813. Lamourouxia multifida, H. B. K.

Santiago, Depart. Zacatepequez, alt. 6500 pp.
1891. Leg. Rosalío Gómez.

## 4013. Lamourouxia multifida, H. B. K.

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.
M. Sept. 1892. Leg. Heyde et Lux.

## 329. Pinguicula caudata, Schlecht.

San Pedro, Depart. San Márcos, alt. 7100 pp.
M. Jan. 1892. Leg. W. C. Shannon.

## 3823. Pinguicula caudata, Schlecht.

determ. Morong.
San Siguan, Depart. Quiché, alt. 5800 pp.
M. Apr. 1892. Leg. Heyde et Lux.

## 3822. Pinguicula crenatiloba, DC.

determ. Morong.
Laguna de Ayarza, Depart. Jalapa, alt. 8800 pp.
M. Sept. 1892. Leg. Heyde et Lux.

## 3102. Achimenes coccinea, Pers.

San Miguel Uspantán, Depart. Quiché, alt. 3000 pp.
M. Jul. 1892. Leg. Heyde et Lux.

## 3101. Achimenes grandiflora, DC.,

var. incisa, Hanst.
Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.
M. Aug. 1892. Leg. Heyde et Lux.

## 4035. Achimenes grandiflora, DC.,

var. incisa, Hanst.
Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.
M. Sept. 1892. Leg. Heyde et Lux.

## 175. Achimenes longiflora, DC.

Primavera, Depart. Sololá, alt. 760 pp.
M. Jul. 1891. Leg. W. C. Shannon.

## 3641. Achimenes longiflora, DC.

Escuintla, Depart. Escuintla, alt. 1200 pp.

M. Jul. 1892. Leg. W. C. Shannon.

## 4032. Achimenes longiflora, DC.

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 335. Heppiella ovata, Klotzsch et Hanst.?

San Cristóbal Cucho, Depart. San Márcos, alt. 8444 pp.

M. Jan. 1892. Leg. W. C. Shannon.

## 3105. Dicyrta Warscewicziana, Regel.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3106. Isoloma elegans, Hemsl.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 263. Isoloma longifolium, Dcne.

San Martin, Depart. Quezaltenango, alt. 8140 pp.

M. Nov. 1891. Leg. W. C. Shannon.

## 2684. Isoloma longifolium, Dcne.

Barranca del Samalá, Depart. Retalhuleu, alt. 1700 pp.

M. Apr. 1892. Leg. J. D. S.

## 4378. Isoloma longifolium, Dcne.

Rio La Plata, Depart. Santa Rosa, alt. 2500 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 3103. Gesnera Warscewiczii, Bouché et Hanst.

Santa Rosa, Depart. Santa Rosa, alt. 2500 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 395. Drymonia spectabilis, Mart.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 4034. Drymonia spectabilis, Mart.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 89. Columnea glabra, Œrst.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 1488. Tynanthus Guatemalensis, Donnell Smith

in Botan. Gaz. xviii. 6, t. xxii.

Rio Ocosito, Depart. Quezaltenango, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 118. Bignonia laurifolia, Vahl.?

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 3602. Bignonia patellifera, Schlecht.

Cuajiniquilapa, Depart. Santa Rosa, alt. 2500 pp.

M. Oct. 1892. Leg. W. C. Shannon.

## 4040. Bignonia patellifera, Schlecht.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4361. Bignonia patellifera, Schlecht.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 2688. Adenocalymna (?) Ocositense, Donnell Smith in Botan. Gaz. xviii. 209.

Rio Ocosito, Depart. Quezaltenango, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 2690. Pithecoctenium hexagonum, DC.

San José, Depart. Escuintla, alt. 0 pp.

M. Apr. 1892. Leg. J. D. S.

## 3108. Pithecoctenium hexagonum, DC.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 3107. Amphilophium molle, Cham. et Schl.

San Siguan, Depart. Quiché, alt. 5800 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3603. Amphilophium paniculatum, H. B. K.

Rio Paz, Depart. Jutiapa, alt. 1500 pp.

M. Oct. 1892. Leg. W. C. Shannon.

## 2070. Tabebuia Donnell-Smithii, Rose

in Botan. Gaz. xvii. 418, t. xxvi.

~~*Copal incolarum.*~~

Cuyuta, Depart. Escuintla, alt. 200 pp.

M. Apr. 1890. Leg. J. D. S.

## 3601. Tecoma mollis, H. B. K.

Volcan Acatenango, Depart. Zacatepequez, alt. 7000 pp.

M. Aug. 1892. Leg. W. C. Shannon.

## 293. Tecoma stans, Juss.

Chiantla, Depart. Huehuetenango, alt. 6300 pp.

M. Dec. 1891. Leg. W. C. Shannon.

## 309. Tecoma stans, Juss.

Canibal, Depart. Huehuetenango, alt. 3180 pp.

M. Dec. 1891. Leg. W. C. Shannon.

## 2687. Tecoma stans, Juss.

Palin, Depart. Amatitlan, alt. 3560 pp.

M. Feb. 1892. Leg. J. D. S.

## 2691. Parmentiera edulis, DC.

Chinautla, Depart. Guatemala, alt. 4000 pp.

M. Maj. 1892. Leg. J. D. S.

## 3109. Parmentiera edulis, DC.

*Cuijilote* incolarum.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3044. Schlegelia cornuta, Donnell Smith

in Botan. Gaz. xviii. 6.

San Miguel Uspantán, Depart. Quiché, alt. 8,000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 4039. Martynia diandra, Glox.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 163. Thunbergia alata, Boj.

Cuyotenango, Depart. Suchitepequez, alt. 1100 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 2701. Thunbergia alata, Boj.

Capetillo, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 2685. Thunbergia laurifolia, Lindl.

In hortis J. J. Rodriguezii JCti. ill. culta.

Capetillo, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 3586. Elytraria tridentata, Vahl.

Cubilguitz, Depart. Alta Verapaz, alt. 1200 pp.

1892. Leg. von Türckheim.

## 4038. Elytraria tridentata, Vahl.

Naranjo, Depart. Santa Rosa, alt. 3500 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 4384. Ruellia albicaulis, Bertero.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 3112. Ruellia Hookeriana, Hemsl.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 3115. Ruellia lactea, Cav.,

**var. acaulis, Nees in DC.**

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2699. Blechum Brownei, Juss.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 3588. Stenandrium dulce, Nees.

Cubilguitz, Depart. Alta Verapaz, alt. 1200 pp.

1892. Leg. von Türckheim.

## 3116. Eranthemum præcox, Benth.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 4037. Aphelandra Heydeana, Donnell Smith

in Botan. Gaz. xviii. 210, t. xxiii.

Chupadero, Depart. Santa Rosa, alt. 5000 pp.

M. Oct. 1892. Leg. Heyde et Lux.

## 154. Aphelandra pectinata, Willd.

Patalul, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 4379. Aphelandra pectinata, Willd.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 258. Dianthera inæqualis, Benth. et Hook.

San Martin, Depart. Retalhuleu, alt. 1500 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 160. Jacobinia aurea, Hemsl.

Retalhuleu, Depart. Retalhuleu, alt. 800 pp

M. Oct. 1891. Leg. W. C. Shannon.

## 161. Jacobinia aurea, Hemsl.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 2694. Jacobinia aurea, Hemsl.

Palin, Depart. Amatitlan, alt. 3560 pp.

M. Feb. 1892. Leg. J. D. S.

## 4362. Jacobinia aurea, Hemsl.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 2700. Jacobinia Mohintli, Hemsl.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 3114. Jacobinia Mohintli, Hemsl.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 346. Thyrsacanthus strictus, Nees,

forma evolutior. (*Justicia corymbulosa, Bertol.?*)

Coatepeque, Depart. San Márcos, alt. 1491 pp.

M. Jan. 1892. Leg. W. C. Shannon.

## 2695. Thyrsacanthus strictus, Nees,
forma evolutior. (*Justicia corymbulosa, Bertol.?*)
San Felipe, Depart. Retalhuleu, alt. 2050 pp.
M. Apr. 1892. Leg. J. D. S.

## 69. Lantana Camara, L.
Primavera, Depart. Sololá, alt. 760 pp.
M. Jul. 1891. Leg. W. C. Shannon.

## 100. Lantana Camara, L.
Santa Barbara, Depart. Sololá, alt. 1370 pp.
M. Aug. 1891. Leg. W. C. Shannon.

## 200. Lantana hirsuta, Mart. et Gal.
Rio Samalá, Depart. Retalhuleu, alt. 1140 pp.
M. Oct. 1891. Leg. W. C. Shannon.

## 133. Lippia dulcis, Trevir.
Santa Barbara, Depart. Sololá, alt. 1370 pp.
M. Aug. 1891. Leg. W. C. Shannon.

## 3029. Lippia dulcis, Trevir.
Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.
M. Jun. 1892. Leg. Heyde et Lux.

## 134. Lippia geminata, H. B. K.
Santa Barbara, Depart. Sololá, alt. 1370 pp.
M. Aug. 1891. Leg. W. C. Shannon.

## 1450. Lippia myriocephala, Cham. et Schl.
Capetillo, Depart. Zacatepequez, alt. 4300 pp.
M. Mart. 1892. Leg. J. D. S.

## 4386. Lippia myriocephala, Cham. et Schl.
Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.
M. Dec. 1892. Leg. Heyde et Lux.

## 3024. Lippia umbellata, Cav.
San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.
M. Apr. 1892. Leg. Heyde et Lux.

## 4387. Lippia umbellata, Cav.
Chiapas, Depart. Santa Rosa, alt. 3500 pp.
M. Dec. 1892. Leg. Heyde et Lux.

## 2965. Bouchea Ehrenbergii, Cham.
Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.
M. Jun. 1892. Leg. Heyde et Lux.

## 3605. Stachytarpheta dichotoma, Vahl.
Rio Paz, Depart. Jutiapa, alt. 1200 pp.
M. Oct. 1892. Leg. W. C. Shannon.

## 2966. Stachytarpheta mutabilis, Vahl.
Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.
M. Jun. 1892. Leg. Heyde et Lux.

## 247. Priva echinata, Juss.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 3017. Priva echinata, Juss.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jul. 1892. Leg. Heyde et Lux.

## 4370. Verbena littoralis, H. B. K.

Chiapas, Depart. Santa Rosa, alt. 3500 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 3018. Verbena polystachya, H. B. K.

San Siguan, Depart. Quiché, alt. 5800 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3638. Verbena polystachya, H. B. K.

Volcan Pacaya, Depart. Amatitlan, alt. 9000 pp.

M. Jul. 1892. Leg. W. C. Shannon.

## 1497. Petræa arborea, Kunth.

Rio Ocosito, Depart. Quezaltenango, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 2973. Petræa arborea, Kunth.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 1479. Ægiphila falcata, Donnell Smith

in Botan. Gaz. xviii. 7.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 4041. Ægiphila Martinicensis, L.

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 135. Cornutia grandifolia, Schauer.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 2957. Cornutia grandifolia, Schauer.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 180. Clerodendron fragrans, Vent.

Mazatenango, Depart. Suchitepequez, alt. 1200 pp.

M. Sept. 1891. Leg. W. C. Shannon.

## 3609. Clerodendron fragrans, Vent.

Arrazola, Depart. Guatemala, alt. 6000 pp.

M. Sept. 1892. Leg. W. C. Shannon.

## 2952. Clerodendron fragrans, Vent.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 2510. Avicennia nitida, Jacq.

San José, Depart. Escuintla, alt. 0 pp.

M. Apr. 1892. Leg. J. D. S.

## 3952. Marsypianthes hyptoides, Mart.

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 2599. Hyptis capitata, Jacq.

Rio Samalá, Depart. Retalhuleu, alt. 1700 pp.

M. Mart. 1892. Leg. J. D. S.

## 3016. Hyptis capitata, Jacq.,

forma pilosa, foliis inferioribus inciso-lobatis, receptaculo piloso. (*H. Guatemalensis, Vatke ined.*)

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 4391. Hyptis capitata, Jacq.,

forma pilosa, foliis inferioribus inciso-lobatis, receptaculo piloso. (*H. Guatemalensis, Vatke ined.*)

Casillas, Depart. Santa Rosa, alt. 4000 pp.

M. Jan. 1893. Leg. Heyde et Lux.

## 3604. Hyptis lilacina, Schiede et Deppe.

Volcan Flores, Depart. Jutiapa, alt. 2500 pp.

M. Oct. 1892. Leg. W. C. Shannon.

## 4045. Hyptis lilacina, Schiede et Deppe.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4390. Hyptis oblongifolia, Benth.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 4393. Hyptis pectinata, Poit.

Teocinte, Depart. Santa Rosa, alt. 2500 pp.

M. Jan. 1893. Leg. Heyde et Lux.

## 4046. Hyptis spicata, Poit.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4109. Hyptis stellulata, Benth.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4396. Hyptis suaveolens, Poit.

Chupadero, Depart. Santa Rosa, alt. 5000 pp.

M. Oct. 1892. Leg. Heyde et Lux.

## 2595. Cunila leucantha, Benth.

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Feb. 1892. Leg. J. D. S.

## 3013. Cunila leucantha, Benth.

San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3127. Micromeria Xalapensis, Benth.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 261. Salvia cinnabarina, Mart. et Gal.

San Cárlos, Depart. Quezaltenango, alt. 8620 pp.

M. Dec. 1891. Leg. W. C. Shannon.

## 3118. Salvia cinnabarina, Mart. et Gal.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 4050. Salvia cyanea, Benth.

Estanzuela, Depart. Santa Rosa, alt. 2500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 4056. Salvia cyanea, Benth.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4401. Salvia Hispanica, L.

Buena Vista, Depart. Santa Rosa, alt. 5500 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 4047. Salvia hyptoides, Mart. et Gal.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4397. Salvia involucrata, Cav.

Jumaytepeque, Depart Santa Rosa, alt. 6000 pp.

M. Jan. 1893. Leg. Heyde et Lux.

## 3128. Salvia lavanduloides, H. B. K.

Sacabajá, Depart. Quiché, alt. 4000 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 4051. Salvia lophantha, Benth.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Oct. 1892. Leg. Heyde et Lux.

## 4399. Salvia occidentalis, Swz.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 4398. Salvia purpurea, Cav.

Casillas, Depart. Santa Rosa, alt. 4000 pp.

M. Jan. 1893. Leg. Heyde et Lux.

## 4394. Salvia purpurea, Cav., var. pubens, A. Gray.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 816. Salvia tiliæfolia, Vahl.

Santiago, Depart. Zacatepequez, alt. 6500 pp.

1891. Leg. Rosalío Gómez.

## 4055. Salvia tiliæfolia, Vahl.

Casillas, Depart. Santa Rosa, alt. 4000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 2596. Scutellaria longifolia, Benth.

Acatepeque, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 3123. Scutellaria purpurascens, Swz., var. heterophylla, Benth.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2918. Brunella vulgaris, L.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 4054. Stachys coccinea, Jacq.

Laguna de Ayarza, Depart. Jalapa.

M. Sept. 1892. Leg. Heyde et Lux.

## 266. Stachys Lindenii, Benth.

(*S. boraginoides, Benth.; non Cham. et Schl.*)

San Martin, Depart. Quezaltenango, alt. 8140 pp.

M. Dec. 1891. Leg. W. C. Shannon.

## 4058. Plantago Galeottiana, Dcne.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4057. Plantago major, L.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3069. Oxybaphus violaceus, Choisy.

Santa Rosa, Depart. Santa Rosa, alt. 2500 pp.

M. Jul. 1892. Leg. Heyde et Lux.

## 2885[B]. Boerhaavia viscosa, Lag.

Rio Negro, Depart. Quiché, alt. 3600 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 4061. Boerhaavia viscosa, Lav.

Jumaytepeque, Depart Santa Rosa, alt. 6000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 2761. Pisonia aculeata, L.

Naranjo, Depart. Escuintla, alt. 300 pp.

M. Mart. 1892. Leg. J. D. S.

## 1230. Pisonia aculeata, L.,
var. macranthocarpa, Donnell Smith
in Botan. Gaz. xvi. 198.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Feb. 1892. Leg. J. D. S.

## 1475. Neea psychotrioides, Donnell Smith
in Botan. Gaz. xvi. 199.

Rio Ocosito, Depart. Quezaltenango, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 2474. Neea psychotrioides, Donnell Smith
in Botan. Gaz. xvi. 199.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Apr. 1892. Leg. J. D. S.

## 156. Celosia cristata, L.
In hortis culta.

Las Animas, Depart. Suchitepequez, alt. 650 pp.

M. Sept. 1891. Leg. W. C. Shannon.

## 127. Amarantus chlorostachys, Willd.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 2938. Amarantus spinosus, L.

Santa Rosa, Depart. Santa Rosa, alt. 3500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 4043. Achyranthes aspera, L.

Rio de Las Cañas, Depart. Santa Rosa, alt. 3000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 2887. Alternanthera Achyrantha, R. Br.,
var. parvifolia, Moq.

Chiul, Depart. Quiché, alt. 8000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2950. Gomphrena decumbens, Jacq.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 4064. Gomphrena decumbens, Jacq.

Chupadero, Depart. Santa Rosa, alt. 5000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 171. Gomphrena globosa, L.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 2903. Iresine canescens, Humb. et Bonpl.

San Siguan, Depart. Quiché, alt. 5800 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3003. Iresine celosioides, L.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3611. Iresine celosioides, L.

Chingo, Depart. Jutiapa, alt. 1000 pp.

M. Oct. 1892. Leg. W. C. Shannon.

## 2911. Chenopodium ambrosioides, L.

*Pazote* incolarum.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2939. Chenopodium ambrosioides, L.

*Pazote* incolarum.

Santa Rosa, Depart. Santa Rosa, alt. 3500 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 803. Chenopodium incisum, Poir.

Santiago, Depart. Zacatepequez, alt. 6500 pp.

1891. Leg. Rosalío Gómez.

## 82. Rivina lævis, L.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 1285. Villamilla octandra, Hook. fil.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Feb. 1892. Leg. J. D. S.

## 2494. Villamilla octandra, Hook. fil.

Naranjo, Depart. Escuintla, alt. 300 pp.

M. Mart. 1892. Leg. J. D. S.

## 224. Petiveria alliacea, L.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 4060. Petiveria alliacea, L.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3031. Phytolacca icosandra, L.,

var. octogyna, Donnell Smith

in Botan. Gaz. xviii. 210.

San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 349. Phytolacca octandra, L.

Coatepeque, Depart. San Márcos, alt. 1491 pp.

M. Jan. 1892. Leg. W. C. Shannon.

## 2906. Phytolacca octandra, L.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2971. Polygonum hispidum, H. B. K.

determ. Small.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 223. Polygonum punctatum, Ell.

(*P. acre, H. B. K.*)

determ. Small.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 2981. Polygonum punctatum, Ell.

(*P. acre, H. B. K.*)

determ. Small.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 2972. Muehlenbeckia tamnifolia, Meisn.

determ. Small.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2483. Antigonon Guatimalense, Meisn.

Capetillo, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 3607. Antigonon Guatimalense, Meisn.

Jutiapa, Depart. Jutiapa, alt. 1200 pp.

M. Oct. 1892. Leg. W. C. Shannon.

## 3825. Aristolochia Gigas, Lindl.

determ. Masters.

Santa Rosa, Depart. Santa Rosa, alt. 3500 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 3824. Aristolochia maxima, L.

determ. Masters.

*Guaco* incolarum.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 1245. Aristolochia ringens, Vahl.

determ. Masters.

In hortis J. J. Rodriguezii JCti. ill. culta.

Capetillo, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 3033. Phœbe amplifolia, Mez et Donnell Smith

n. sp. ined.

El Jute, Depart. Quiché, alt. 10,000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3089. Phœbe helicterifolia, Mez.

determ. Mez.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2608. Ocotea Veraguensis, Mez.

determ. Mez.

Rio Ocosito, Depart. Quezaltenango, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 1276. Litsea Guatemalensis, Mez.

determ. Mez.

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Feb. 1892. Leg. J. D. S.

## 3466. Litsea Neesiana, Schauer.

determ. Mez.

San Miguel Uspantán, Depart. Quiché, alt. 8000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 4071. Daphnopsis Lindeni, Meisn.

Folia fructusque cum fragmentis (in herb. universitatis Columbiensis a me visis) speciminis typici Bonpland. (n. 1746) atque speciminis Hartweg. (n. 1367) bene quadrant. Flores fœminæ hactenus, ut videtur, ignotæ calycem globoso-campanulatum lobis parvulis rotundis patulis, stamina sterilia et annulum pæne obsoleta exhibent.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4268. Euphorbia cotinifolia, L. ex char.

Involucrum habet pubescens vel tardiuscule glabrescens.

determ. Robinson.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 2623. Euphorbia dentata, Michx.

determ. Robinson.

Caballo Blanco, Depart. Retalhuleu, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 3472. Euphorbia Friedrichsthalii, Boiss. ex char.

determ. Robinson.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 1965. Euphorbia lancifolia, Schlecht.

determ. Robinson.

Sapote, Depart. Guatemala, alt. 4300 pp.

M. Mart. 1890. Leg. J. D. S.

## 3469. Euphorbia pilulifera, L.

determ. Robinson.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 185. Euphorbia pulcherrima, Willd.

determ. Robinson.

San Sebastian, Depart. Retalhuleu, alt. 1000 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 3843. Euphorbia pulcherrima, Willd.

determ. Robinson.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 2620. Phyllanthus acuminatus, Vahl.

determ. Robinson.

Sau Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 3844. Phyllanthus lathyroides, H. B. K.,
### var. genuina, Muell. Arg.

determ. Robinson.

Carrizal, Depart. Santa Rosa, alt. 5000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 1378. Phyllanthus laxiflorus, Benth.

Volcan de Fuego, Depart. Zacatepequez, alt. 5500 pp.

M. Mart. 1892. Leg. J. D. S.

## 3052. Phyllanthus laxiflorus, Benth.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3650. Phyllanthus laxiflorus, Benth.

Alotenango, Depart. Zacatepequez, alt. 4300 pp.

M. Aug. 1892. Leg. W. C. Shannon.

## 2622. Phyllanthus micrandrus, Muell. Arg.

determ. Robinson.

Rio Ocosito, Depart. Quezaltenango, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 2521. Jatropha Curcas, L.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Apr. 1892. Leg. J. D. S.

## 3071. Jatropha Curcas, L.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 2624. Jatropa urens, L.,
### var. genuina, Muell. Arg.

determ. Robinson.

Amatitlan, Depart. Amatitlan, alt. 3900 pp.

M. Maj. 1892. Leg. J. D. S.

## 3474. Jatropha urens, L.,
### var. genuina, Muell. Arg.

determ. Robinson.

Santa Rosa, Depart Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 3659. Croton ciliato-glandulosus, Ort.

determ. Robinson.

Chingo, Depart. Jutiapa, alt. 1000 pp.

M. Oct. 1892. Leg. W. C. Shannon.

## 3467. Croton repens, Schlecht.

determ. Robinson.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3590. Croton repens, Schlecht.

determ. Robinson.

Cubilguitz, Depart. Alta Verapaz, alt. 1200 pp.

1892. Leg. von Türckheim.

## 2621. Croton Panamensis, Muell. Arg.

determ. Robinson.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 3840. Croton Xalapensis, Muell. Arg.

determ. Robinson.

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4306. Manihot utilissima, Pohl.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 2901. Hura crepitans, L.

Sacapulas, Depart. Quiché, alt. 3800 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 1341. Acalypha macrostachya, Muell. Arg.

determ. Robinson.

Barranca de Eminencia, Depart. Amatitlan, alt. 1400 pp.

M. Feb. 1892. Leg. J. D. S.

## 1962. Acalypha macrostachya, Muell. Arg.

determ. Robinson.

Sapote, Depart. Guatemala, alt. 4300 pp.

M. Mart. 1890. Leg. J. D. S.

## 1495. Celtis anfractuosa, Liebm.

Caballo Blanco, Depart. Retalhuleu, alt. 250 pp.

M. Apr. 1892. Leg. J. D. S.

## 2945. Trema micrantha, Blume.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 2962. Dorstenia contrajerva, L.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 97. Dorstenia contrajerva, L.,

var. Houstoni, Bureau.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 1499. Cecropia Mexicana, Hemsl.

San Andres, Depart. Retalhuleu, alt. 1400 pp.

M. Apr. 1892. Leg. J D. S.

## 3144. Urtica chamædryoides, Pursh.

Chiul, Depart. Quiché, alt. 8000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2506. Castilloa elastica, Cerv.

*Hule* incolarum.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Feb. 1892. Leg. J. D. S.

## 2976. Urera Caracasana, Griseb.

*Chichicaste* incolarum.

Nebáj, Depart. Quiché, alt. 7000 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 1498. Urera Caracasana, Griseb.,

var. tomentosa, Wedd.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 4067. Urera Caracasana, Griseb.,

var. tomentosa, Wedd.

Naranjo, Depart. Santa Rosa, alt. 3500 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 3146. Pilea dauciodora, Wedd.,

var. pilosa, Wedd.

determ. Taubert.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 1094. Pilea microphylla, Liebm.

Depart. Peten.

1889. Leg. R. Walker.

## 3142. Pilea pumila, A. Gray.

determ. Taubert.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jul. 1892. Leg. Heyde et Lux.

## 2879. Myrica Xalapensis, H. B. K.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 2880. Myrica Xalapensis, H. B. K.

Chiniqué, Depart. Quiché, alt. 4600 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 2923. Alnus acuminata, H. B. K.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 4411. Carpinus Americana, Michx.,

var. tropicalis, Donnell Smith

in Botan. Gaz. xv. 28.

In spicis masculis bracteæ rigidæ acutissimæ.

Carrizal, Depart. Santa Rosa, alt. 5000 pp.

M. Jan. 1893. Leg. Heyde et Lux.

## 3621. Ostrya Virginica, Willd.

Volcan Acatenango, Depart. Zacatepequez, alt. 7000 pp.

M. Aug. 1892. Leg. W. C. Shannon.

## 2470. Ostrya Virginica, Willd.

Volcan Acatenango, Depart. Zacatepequez, alt. 6500 pp.

M. Mart. 1892. Leg. J. D. S.

## 2910. Ostrya Virginica, Willd.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2628. Quercus brachystachys, Benth.

(*Q. splendens, Nee?*)

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Feb. 1892. Leg. J. D. S.

## 3153. Quercus Mexicana, Humb. et Bonpl.?

Rio Negro, Depart. Quiché, alt. 3600 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 2627. Quercus nitens, Mart. et Gal.

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Feb. 1892. Leg. J. D. S.

## 2629. Quercus nitens, Mart. et Gal.

Volcan Acatenango, Depart. Zacatepequez, alt. 7000 pp.

M. Mart. 1892. Leg. J. D. S.

## 3151. Quercus Sartorii, Liebm.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3154. Quercus Sartorii, Liebm.

Rio Negro, Depart. Quiché, alt. 3600 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 2630. Quercus Skinneri, Hook.

(*Q. Xalapensis, H. B. K.?*)

Volcan de Fuego, Depart. Zacatepequez, alt. 6000 pp.

M. Mart. 1892. Leg. J. D. S.

## 3636. Quercus Skinneri, Hook.

(*Q. Xalapensis, H. B. K.?*)

Acatepeque, Depart. Zacatepequez, alt. 6000 pp.

Leg. J. J. Rodriguez.

## 3648. Quercus Skinneri, Hook.

(*Q. Xalapensis, H. B. K.?*)

Volcan Acatenango, Depart. Zacatepequez, alt. 7000 pp.

M. Aug. 1892. Leg. W. C. Shannon.

## 2631. Salix Humboldtiana, Willd., var. oxyphylla, Anders.

determ. Bebb.

Capetillo, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 3155. Salix Humboldtiana, Willd., var. oxyphylla, Anders.

determ. Bebb.

Arrazola, Depart. Guatemala, alt. 6000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3157. Cupressus Lindleii, Klotzsch.

determ. Masters.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 3622. Pinus Donnell-Smithii, Masters

in Botan. Gaz. xvi. 199.

Volcan de Agua, Depart. Zacatepequez, alt. 12,400 pp.

M. Jun. 1892. Leg. W. C. Shannon.

## 2632. Pinus filifolia, Lindl.

determ. Masters.

Incolæ perhibent de montibus superioribus delatam.

Dueñas, Depart. Zacatepequez, alt. 5000 pp.

M. Mart. 1892. Leg. J. D. S.

## 2633. Pinus leiophylla, Sch. et Depp.

determ. Masters.

Chinautla, Depart. Guatemala, alt. 4,000 pp.

M. Maj. 1892. Leg. J. D. S.

## 3156. Pinus leiophylla, Sch. et Depp.

determ. Masters.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3645. Hedychium coronarium, Kœn.

determ. Baker.

Chocolá, Depart. Suchitepequez, alt. 2000 pp.

M. Jul. 1892. Leg. W. C. Shannon.

## 216. Zingiber officinale, Rosc.

determ. Baker.

San Sebastian, Depart. Retalhuleu, alt. 1000 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 2801. Costus comosus, Roscoe.

determ. Baker.

Barranca del Samalá, Depart. Retalhuleu, alt. 1700 pp.

M. Apr. 1892. Leg. J. D. S.

## 2802. Costus comosus, Roscoe.

determ. Baker.

Barranca de Eminencia, Depart. Amatitlan, alt. 1400 pp.

M. Feb. 1892. Leg. J. D. S.

## 2800. Costus maleorticanus, Wendl.

determ. Baker.

Rio Sis, Depart. Suchitepequez, alt. 1300 pp.

M. Apr. 1892. Leg. J. D. S.

## 137. Costus spicatus, Swz.

determ. Baker.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Jul. 1891. Leg. W. C. Shannon.

## 153. Maranta arundinacea, L.

determ. Baker.

Patalul, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 3872. Calathea Allouya, Lindl.?

determ. Baker.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 111. Calathea insignis, Peters.

determ. Baker.

Las Animas, Depart. Suchitepequez, alt. 650 pp.

M. Sept. 1891. Leg. W. C. Shannon.

## 166. Calathea insignis, Peters.

determ. Baker.

Primavera, Depart. Sololá, alt. 760 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 2805. Calathea insignis, Peters.

determ. Baker.

Barranca del Samalá, Depart. Retalhuleu, alt. 1700 pp.

M. Apr. 1892. Leg. J. D. S.

## 2806. Calathea insignis, Peters.

determ. Baker.

Rio Sis, Depart. Suchitepequez, alt. 1300 pp.

M. Apr. 1892. Leg. J. D. S.

## 397. Calathea violacea, Lindl.

determ. Baker.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 2799. Canna discolor, Lindl.?

determ. Baker.

Rio Sis, Depart. Suchitepequez, alt. 1300 pp.

M. Apr. 1892. Leg. J. D. S.

## 3537. Canna edulis, Ker.?

determ. Baker.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jul. 1892. Leg. Heyde et Lux.

## 2797. Canna glauca, L.

determ. Baker.

Amatitlan, Depart. Amatitlan, alt. 3900 pp.

M. Maj. 1892. Leg. J. D. S.

## 173. Cannæ Indicæ, L., subspecies.

determ. Baker.

Primavera, Depart. Sololá, alt. 760 pp.

M. Jul. 1891. Leg. W. C. Shannon.

## 221. Cannæ Indicæ, L., subspecies.

determ. Baker.

Las Animas, Depart. Suchitepequez, alt. 650 pp.

M. Sept. 1891. Leg. W. C. Shannon.

## 2798. Cannæ Indicæ, L., subspecies.

determ. Baker.

La Corona, Depart. Guatemala, alt. 4800 pp.

M. Maj. 1892. Leg. J. D. S.

## 2804. Heliconia latispatha, Benth.

determ. Baker.

Rio Sis, Depart. Suchitepequez, alt. 1300 pp.

M. Apr. 1892. Leg. J. D. S.

## 3870. Pitcairnia Altensteinii, Lem.

determ. Baker.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3539. Tillandsia brachycaulos, Schlecht.

determ. Baker.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Jul. 1892. Leg. Heyde et Lux.

## 2795. Tillandsia bulbosa, Hook.

determ. Baker.

Santa Lucia, Depart. Escuintla, alt. 900 pp.

Leg. J. J. Rodriguez.

## 2796. Tillandsia cyanea, E. Morren.

determ. Baker.

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Feb. 1892. Leg. J. D. S.

## 3538. Tillandsia polystachya, L.

determ. Baker.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 2794. Tillandsia stricta, Soland.

determ. Baker.

Volcan de Fuego, Depart. Zacatepequez, alt. 6500 pp.

M. Mart. 1892. Leg. J. D. S.

## 68. Xiphidium floribundum, Swz.

determ. Baker.

Primavera, Depart. Sololá, alt. 760 pp.

M. Jul. 1891. Leg. W. C. Shannon.

## 3873. Xiphidium floribundum, Swz.

determ. Baker.

Estanzuela, Depart. Santa Rosa, alt. 2500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 920. Tigridia Pavonia, Ker.

determ. Baker.

Santiago, Depart. Zacatepequez, alt. 6500 pp.

1891. Leg. Rosalío Gómez.

## 3593. Cipura paludosa, Aubl.

determ. Baker.

Cubilguitz, Depart. Alta Verapaz, alt. 1200 pp.

1892. Leg. von Türckheim.

## 3532. Nemastylis tenuis, Benth.

determ. Baker.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 3666. Nemastylis triflora, Herb.?

determ. Baker.

Los Encuentros, Depart. Sololá, alt. 9500 pp.

M. Jun. 1892. Leg. W. C. Shannon.

## 3530. Orthrosanthus Chimborazensis, Baker.

determ. Baker.

Chiniqué, Depart. Quiché, alt. 4600 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 3533. Sisyrinchium alatum, Hook.

determ. Baker.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3534. Sisyrinchium iridifolium, H. B. K.

determ. Baker.

Chiul, Depart. Quiché, alt. 8000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3871. Sisyrinchium micranthum, Cav.

determ. Baker.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3644. Sisyrinchium tenuifolium, H. B. K.

determ. Baker.

Valle de Quiché, Depart. Quiché, alt. 6700 pp.

M. Jun. 1892. Leg. W. C. Shannon.

## 2871. Hypoxis decumbens, L.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2934. Hypoxis decumbens, L.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3535. Curculigo scorzoneræfolia, Benth.

determ. Baker.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3592. Curculigo scorzoneræfolia, Benth.

Cubilguitz, Depart. Alta Verapaz, alt. 1200 pp.

1892. Leg. von Türckheim.

## 2792. Zephyranthes carinata, Herb., forma typica.

determ. Baker.

La Corona, Depart. Guatemala, alt. 4800 pp.

M. Maj. 1892. Leg. J. D. S.

## 2793. Zephyranthes carinata, Herb., var. brevipes.

determ. Baker.

La Corona, Depart. Guatemala, alt. 4800 pp.

M. Maj. 1892. Leg. J. D. S.

## 3531. Zephyranthes n. sp.?

determ. Baker.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 213. Crinum erubescens, Ait.

determ. Baker.

Rio Samalá, Depart. Retalhuleu, alt. 1100 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 4293. Crinum erubescens, Ait.

determ. Baker.

Jumaytepeque, Depart Santa Rosa, alt. 6000 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 404. Crinum n. sp.? C. erubescenti, Ait., proxima.

*La Reina de las flores* incolarum.

determ. Baker.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 3536. Hymenocallis tenuiflora, Herb.

determ. Baker.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 3632. Bomarea acutifolia, Herb.

Volcan de Agua, Depart. Zacatepequez, alt. 8000 pp.

M. Jun. 1892. Leg. W. C. Shannon.

## 914. Bomarea ovata, Mirb.

(*B. edulis, Herb.*)

determ. Baker.

Santiago, Depart. Zacatepequez, alt. 6500 pp.

1891. Leg. Rosalío Gómez.

## 3615. Bomarea ovata, Mirb.

(*B. edulis, Herb.*)

Volcan Acatenango, Depart. Zacatepequez, alt. 10,000 pp.

M. Aug. 1892. Leg. W. C. Shannon.

## 3875. Bomarea ovata, Mirb.

(*B. edulis, Herb.*)

determ. Baker.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 4292. Agave (Manfreda), n. sp.?

determ. Baker.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 3880. Dioscorea capillaris, Hemsl.?

determ. Hemsley.

Chiapas, Depart. Santa Rosa, alt. 3500 pp.

M. Dec. 1892. Leg. Heyde et Lux.

4103. Dioscorea convolvulacea, Cham. et Schl.?
determ. Hemsley.
Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.
M. Aug. 1892. Leg. Heyde et Lux.

4291. Dioscorea propinqua, Hemsl.
determ. Hemsley.
Cenaguilla, Depart. Santa Rosa, alt. 4000 pp.
M. Nov. 1892. Leg. Heyde et Lux.

3869. Dioscorea, sp. n.?
D. densifloræ, Hemsl. proxima.
determ. Hemsley.
Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.
M. Sept. 1892. Leg. Heyde et Lux.

3526. Smilax Botterii, A. DC.?
determ. Baker.
San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.
M. Apr. 1892. Leg. Heyde et Lux.

2791. Smilax Mexicana, Kunth.
determ. Baker.
Acatepeque, Depart. Zacatepequez, alt. 4300 pp.
M. Mart. 1892. Leg. J. D. S.

3527. Smilacina flexuosa, Hook.
determ. Baker.
Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.
M. Jun. 1892. Leg. Heyde et Lux.

3634. Smilacina flexuosa, Hook.
Volcan de Agua, Depart. Zacatepequez, alt. 10,000 pp.
M. Jun. 1892. Leg. W. C. Shannon.

358. Smilacina Salvini, Hemsl.?
Chicoy, Depart. Chimaltenango, alt. 9000 pp.
M. Mart. 1892. Leg. W. C. Shannon.

439. Smilacina Salvini, Hemsl.?
Depart. Quezaltenango.
M. Jan. 1892. Leg. W. C. Shannon.

3528. Echeandia parviflora, Baker.
determ. Baker.
Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.
M. Maj. 1892. Leg. Heyde et Lux.

938. Allium glandulosum, Link et Otto.
determ. Baker.
Santiago, Depart. Zacatepequez, alt. 6500 pp.
1891. Leg. Rosalío Gómez.

3874. Schœnocaulon officinale, A. Gray.
determ. Baker.
Rio de Los Esclavos, Depart. Santa Rosa, alt. 2500 pp.
M. Aug. 1892. Leg. Heyde et Lux.

## 4072. Heteranthera limosa, Vahl.

Estanzuela, Depart. Santa Rosa, alt. 2500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 2980. Heteranthera reniformis, Ruiz et Pav.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3887. ~~771.~~ Commelina cœlestis, Willd.,

var. Bourgeaui, C. B. Clarke

in DC. Mon. Phan. iii. 153.

determ. Clarke.

Rio de Los Esclavos, Depart. Santa Rosa, alt. 2500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3520. Commelina fasciculata, Ruiz et Pav.

determ. Clarke.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 770. Commelina nudiflora, L.

determ. Clarke.

Primavera, Depart. Sololá, alt. 760 pp.

M. Jul. 1891. Leg. W. C. Shannon.

## 772. Commelina pallida, Willd.?

determ. Clarke.

Primavera, Depart. Sololá, alt. 760 pp.

M. Jul. 1891. Leg. W. C. Shannon.

## 694. Commelina Virginica, L.

determ. Clarke.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 3518. Commelina Virginica, L.

determ. Clarke.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jul. 1892. Leg. Heyde et Lux.

## 245. Dichorisandra thyrsiflora, Mikan.

determ. Clarke.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon

## 815. Tinantia fugax, Scheidw.

determ. Clarke.

Santiago, Depart. Zacatepequez, alt. 6500 pp.

1891. Leg. Rosalío Gómez.

## 3524. Tinantia fugax, Scheidw.

determ. Clarke.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 695. Tinantia leiocalyx, Clarke

in Botan. Gaz. xviii. 211.

Rio Samalá, Depart. Retalhuleu, alt. 1700 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 4284. Tradescantia amplexicaulis, Klotzsch.

determ. Clarke.

Cenaguilla, Depart. Santa Rosa, alt. 4000 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 3883. Tradescantia commelinoides, Rœm. et Sch.

determ. Clarke.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4287. Tradescantia commelinoides, Rœm. et Sch.

determ. Clarke.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Jan. 1893. Leg. Heyde et Lux.

## 3525. Tradescantia crassifolia, Cav.

determ. Clarke.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 739. Tradescantia Cumanensis, Kunth.

determ. Clarke.

Las Animas, Depart. Suchitepequez, alt. 650 pp.

M. Sept. 1891. Leg. W. C. Shannon.

## 3882. Tradescantia Cumanensis, Kunth,

var. glabrior, Clarke in DC. Mon. Phan. iii. 306.

determ. Clarke.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Oct. 1892. Leg. Heyde et Lux.

## 3884. Tradescantia elongata, G. F. W. Meyer.

determ. Clarke.

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3521. Tradescantia elongata, G. F. W. Mey.,

var. diuretica, Clarke.

determ. Clarke.

Cunen, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3522. Tradescantia elongata, G. F. W. Mey.,

var. diuretica, Clarke.

determ. Clarke.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3519. Tradescantia Guatemalensis, Clarke

in Botan. Gaz. xviii. 210.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3665. Tradescantia Guatemalensis, Clarke

in Botan. Gaz. xviii. 210.

Volcan Pacaya, Depart. Amatitlan, alt. 9000 pp.

M. Jul. 1892. Leg. W. C. Shannon.

## 3886. Tradescantia Guatemalensis, Clarke

in Botan. Gaz. xviii. 210.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 678. Tradescantia pulchella, H. B. K.?

determ. Clarke.

Depart. Retalhuleu, alt. 1141 pp.

M. Nov. 1891. Leg. W. C. Shannon.

## 3885. Tradescantia pulchella, H. B. K.

determ. Clarke.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 755. Campelia Zanonia, H. B. K.

determ. Clarke.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 4286. Campelia Zanonia, H. B. K.

Naranjo, Depart. Santa Rosa, alt. 3500 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 3517. Leptorhoe filiformis, Hemsl.

determ. Clarke.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jul. 1892. Leg. Heyde et Lux.

## 3628. Weldenia candida, Schult.

Volcan de Agua, Depart. Zacatepequez, alt. 12,200 pp.

M. Jun. 1892. Leg. W. C. Shannon.

## 4417. Pistia Stratiotes, L., var. obcordata, Engl.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jan. 1893. Leg. Heyde et Lux.

## 2787. Philodendron Donnell-Smithii, Engl.

n. sp. ined.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 2784. Philodendron Guatemalense, Engl.

n. sp. ined.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Mart. 1892. Leg. J. D. S.

## 2785. Philodendron Guatemalense, Engl.

n. sp. ined.

Rio Sis, Depart. Suchitepequez, alt. 1300 pp.

M. Apr. 1892. Leg. J. D. S.

## 2781. Syngonium Donnell-Smithii, Engl.

n. sp. ined.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 2782. Syngonium Donnell-Smithii, Engl.

n. sp. ined.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Mart. 1892. Leg. J. D. S.

## 2783. Syngonium Donnell-Smithii, Engl.

n. sp. ined.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Feb. 1892. Leg. J. D. S.

## 2790. Spathiphyllum phryniifolium, Schott.

Barranca de Eminencia, Depart. Amatitlan, alt. 1400 pp.

M. Feb. 1892. Leg. J. D. S.

## 4073. Sagittaria Guayanensis, H. B. K.

determ. Morong.

Estanzuela, Depart. Santa Rosa, alt. 2500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 4074. Echinodorus macrophyllus, Benth.

determ. Morong.

Rio de Los Esclavos, Depart. Santa Rosa, alt. 2500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 4076. Potamogeton interruptus, Kit.

determ. Morong.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4075. Potamogeton malaiana, Miq.?

Quod ad folia et pedunculos attinet persimilis, attamen fructu absente haud certam determinationem admittens.

determ. Morong.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3541. Pycreus polystachyus, Beauv.,

var. paniculata, (sp.) Rottb. (*Cyperus fugax, Liebm.*)

determ. Clarke.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 3893. Cyperus amabilis, Vahl.

determ. Clarke.

Los Esclavos, Depart Santa Rosa, alt. 2500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3890[B]. Cyperus diffusus, Vahl.

determ. Clarke.

Cenaguilla, Depart Santa Rosa, alt. 4000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3548. Cyperus Haspan, L.,

var. Americana, Bœck.

determ. Clarke.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3546. Cyperus seslerioides, H. B. K.,
### forma minor (*C. perpusillus, Bœck.*)

determ. Clarke.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3543. Mariscus (Diclidium) ferax, Rich.?

determ. Clarke.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3551. Mariscus flavus, Vahl.,
### var. humilis, Benth.
(*M. elatus, Kunth, non Vahl.; M. redolens, Maury in Mem. Soc. Genev. xxxi. 126, t. xxxviA.*)

determ. Clarke.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3890[C]. Mariscus Jacquinii, H. B. K.

determ. Clarke.

Cenaguilla, Depart. Santa Rosa, alt. 4000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3894. Mariscus Manimæ, Clarke.
(*Cyperus Manimæ, H. B. K.*)

determ. Clarke.

Cenaguilla, Depart. Santa Rosa, alt. 4000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3542[B]. Mariscus Manimæ, Clarke,
(*Cyperus Manimæ, H. B. K.*), var. apiculata, Clarke.
(*C. apiculatus, Liebm. ex charact.; C. spectabilis, Britton, non Schreber.*)

determ. Clarke.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jul. 1892. Leg. Heyde et Lux.

## 3553. Mariscus Mutisii, H. B. K.

determ. Clarke.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3542. Mariscus Sieberianus, Nees,
### var. evolutior, Clarke.

Eandem plantam *Salvin* in monte ignivomo, *Volcan de Fuego*, legit. determ. Clarke.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jul. 1892. Leg. Heyde et Lux.

## 3897. Kyllinga brevifolia, Rottb.

determ. Clarke.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3540. Kyllinga odorata, Vahl.

determ. Clarke.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 3550. Kyllinga pumila, Mich.

determ. Clarke.
Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.
M. Maj. 1892. Leg. Heyde et Lux.

## 3544. Eleocharis geniculata, R. Br.

determ. Clarke.
Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.
M. Jun. 1892. Leg. Heyde et Lux.

## 3554. Eleocharis montana, Rœm. et Schult.

(*Heleocharis montana et H. Dombeyana, Bœck., partim; H. vulcani, Bœck.*)

determ. Clarke.
San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.
M. Apr. 1892. Leg. Heyde et Lux.

## 3889. Eleocharis nodulosa, Schultes.

determ. Clarke.
Pueblo Ralo, Depart. Santa Rosa, alt. 3500 pp.
M. Nov. 1892. Leg. Heyde et Lux.

## 1128. Dichromena ciliata, Vahl.

Depart. Peten.
1889. Leg. R. Walker.

## 3594. Dichromena ciliata, Vahl.

(*Rhynchospora nervosa et R. leucocephala, Bœck.*)

determ. Clarke.
Cubilguitz, Depart. Alta Verapaz, alt. 1200 pp.
1892. Leg. von Türckheim.

## 3555. Fimbristylis diphylla, Vahl.

determ. Clarke.
San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.
M. Apr. 1892. Leg. Heyde et Lux.

## 3896. Fimbristylis diphylla, Vahl.

determ. Clarke.
Estanzuela, Depart. Santa Rosa, alt. 2500 pp.
M. Aug. 1892. Leg. Heyde et Lux.

## 3888. Bulbostylis capillaris, Kunth.

determ. Clarke.
Estanzuela, Depart. Santa Rosa, alt. 2500 pp.
M. Aug. 1892. Leg. Heyde et Lux.

## 3545. Scirpus micranthus, Vahl.

determ. Clarke.
Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.
M. Jun. 1892. Leg. Heyde et Lux.

## 3895. Scirpus riparius, Presl.

determ. Clarke.
Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.
M. Sept. 1892. Leg. Heyde et Lux.

## 1846. Scleria macrocarpa, Saltzm. ex descript.

determ. Britton.
Rio Dulce, Depart. Yzabal, alt. 0 pp.
M. Mart. 1889. Leg. J. D. S.

## 3892. Carex cladostachys, Vahl.

determ. Clarke.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3552. Carex viridis, Schlecht. et Cham.

determ. Clarke.

Chiul, Depart. Quiché, alt. 8000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3903. Paspalum aspericaule, Scribn. n. sp. ined.

Chupadero, Depart. Santa Rosa, alt. 5000 pp.

M. Oct. 1892. Leg. Heyde et Lux.

## 3902. Paspalum conjugatum, Berg.

determ. Scribner.

Ojo de Agua, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4300. Paspalum gracile, Rudge.

determ. Scribner.

Laguna de Carrizal, Depart. Santa Rosa, alt. 5000 pp.

M. Jan. 1893. Leg. Heyde et Lux.

## 3910. Paspalum notatum, Flügge.

determ. Scribner.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3558. Paspalum paniculatum, L.

determ. Vasey.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 4101. Paspalum plicatulum, Mich.

determ. Scribner.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3898. Paspalum virgatum, L.,

### var. Linneanum, Flugge.

determ. Scribner.

Estanzuela, Depart. Santa Rosa, alt. 2500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3916. Isachne trachyspermum, Scribn.

determ. Scribner.

Chupadero, Depart. Santa Rosa, alt. 5000 pp.

M. Oct. 1892. Leg. Heyde et Lux.

## 4299. Panicum brevifolium, L.

determ. Scribner.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 2704. Panicum leucophæum, H. B. K.

determ. Vasey.

San José, Depart. Escuintla, alt. 0 pp.

M. Apr. 1892. Leg. J. D. S.

## 2705. Panicum maximum, Jacq.

determ. Vasey.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Apr. 1892. Leg. J. D. S.

## 3556. Panicum plantagineum, Link.

determ. Vasey.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3563. Panicum sanguinale, L.

determ. Scribner.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3562. Panicum sanguinale, L.,

**var. ciliare, Vasey.**

determ. Vasey.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 1138. Panicum stoloniferum, Poir.,

**var. major, L.** determ. Vasey.

Depart. Peten.

1889. Leg. R. Walker.

## 3911. Oplismenus holciformis, H. B. K.

(*Panicum holciforme, Steud.; Berchtoldia holciformis, Fourn.*)

determ. Scribner.

Estanzuela, Depart. Santa Rosa, alt. 2500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 4297. Oplismenus Humboldtianus, Nees;

non Presl.

(*O. Burmanni, H. B. K.; O. cristatus, Presl.*)

determ. Scribner.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 3922. Oplismenus setarius, Rœm. et Sch.

determ. Scribner.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3672. Orthopogon Humboldtianus, Nees.

determ. Vasey.

Volcan Chingo, Depart. Jutiapa, alt. 3000 pp.

M. Oct. 1892. Leg. W. C. Shannon.

## 3924. Chætium bromoides, Benth.

determ. Scribner.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3909. Setaria glauca, Beauv.,

**forma (*S. penicillata, Presl.*)**

determ. Scribner.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3874B. Cenchrus echinatus, L.

determ. Scribner.

Rio de Los Esclavos, Depart. Santa Rosa, alt. 2500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 4296. Cenchrus inflexus, R. Br.;

Benth. in Fl. Austral. vii. 497.

determ. Scribner.

In agris pascuis. An advena?

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 3923. Pennisetum caudatum, Kunth.

determ. Scribner.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3907. Arundinella Martinicensis, Trin.

determ. Scribner.

Rio Pinula, Depart. Santa Rosa, alt. 4000 pp.

M. Oct. 1892. Leg. Heyde et Lux.

## 2707. Ægopogon geminiflorus, H. B. K.

determ. Vasey.

Capetillo, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 2708. Ægopogon cenchroides, H. B. K.

determ. Vasey.

Chinautla, Depart. Guatemala, alt. 4000 pp.

M. Maj. 1892. Leg. J. D. S.

## 3912. Anthephora elegans, Schreb.

determ. Scribner.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3564. Saccharum Cayennense, Benth.

determ. Vasey.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3919. Manisuris granularis, L.

determ. Scribner.

Estanzuela, Depart. Santa Rosa, alt. 2500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3920. Trachypogon polymorphus, Hackel, var. Montufari, Hackel.

determ. Scribner.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3674. Andropogon fastigiatus, H. B. K.

determ. Scribner.

Rio Paz, Depart. Jutiapa, alt. 1200 pp.

M. Oct. 1892. Leg. W. C. Shannon.

## 3929. Andropogon nutans, L.,
### var. incompletus, Hackel.

determ. Scribner.
Naranjo, Depart. Santa Rosa, alt. 3500 pp.
M. Nov. 1892. Leg. Heyde et Lux.

## 3931. Andropogon Ruprechtii, Hackel.

determ. Scribner.
Naranjo, Depart. Santa Rosa, alt. 3500 pp.
M. Nov. 1892. Leg. Heyde et Lux.

## 3905. Andropogon saccharoides, Swz.,
### var. laguroides, Hackel.

determ. Scribner.
Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.
M. Sept. 1892. Leg. Heyde et Lux.

## 3699. Muhlenbergia diversiglumis, Trin.

determ. Vasey.
Volcan Chingo, Depart. Jutiapa, alt. 3000 pp.
M. Oct. 1892. Leg. W. C. Shannon.

## 3913. Muhlenbergia tenella, Trin.

determ. Scribner.
Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.
M. Sept. 1892. Leg. Heyde et Lux.

## 3921. Perieilema crinitum, Presl.

determ. Scribner.
Cenaguilla, Depart. Santa Rosa, alt. 4000 pp.
M. Oct. 1892. Leg. Heyde et Lux.

## 3673. Perieilema crinitum, Presl.

determ. Vasey.
Volcan Chingo, Depart. Jutiapa, alt. 3000 pp.
M. Oct. 1892. Leg. W. C. Shannon.

## 3917. Sporobolus Indicus, R. Br.

determ. Scribner.
Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.
M. Aug. 1892. Leg. Heyde et Lux.

## 3925. Sporobolus macrospermus, Scribn.
### (=2447 Pl. Mex. Pringle.)

determ. Scribner.
Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.
M. Sept. 1892. Leg. Heyde et Lux.

## 3932. Epicampes gigantea, Fourn.
### (=3137 Bourgeau.)

determ. Scribner.
Naranjo, Depart. Santa Rosa, alt. 3500 pp.
M. Nov. 1892. Leg. Heyde et Lux.

## 3675. Agrostis Tolucensis, H. B. K.

determ. Scribner.
Volcan Tajumulco, Depart. San Márcos, alt. 13,700 pp.
M. Jan. 1892. Leg. W. C. Shannon.

## 2702. Agrostis verticillata, Vill.

determ. Vasey.

Capetillo, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 2703. Polypogon elongatus, Kunth.

determ. Vasey.

Capetillo, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 324. Calamagrostis Tolucensis, Kunth.

determ. Vasey.

Volcan Tajumulco, Depart. San Márcos, alt. 13,742 pp.

M. Jan. 1892. Leg. W. C. Shannon.

## 3559. Microchloa setacea, R. Br.

determ. Vasey.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 3918. Chloris elegans, H. B. K.

determ. Scribner.

Estanzuela, Depart. Santa Rosa, alt. 2500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3930. Bouteloua curtipendula, Torr.

determ. Scribner.

Naranjo, Depart. Santa Rosa, alt. 3500 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 3560. Pentarraphis scabra, Kunth.

determ. Vasey.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 3561. Eleusine Indica, L.

determ. Vasey.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jul. 1892. Leg. Heyde et Lux.

## 3901. Eragrostis ciliaris, Link.

determ. Scribner.

Ojo de Agua, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3928. Eragrostis major, Host.

(*Briza Eragrostis, L.; Poa multiflora, Forsk.; P. megastachya, Koel.*)

determ. Scribner.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3557. Eragrostis Mexicana, Link.

determ. Scribner.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3563. Eragrostis Mexicana, Link?

determ. Vasey.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3565. Eragrostis Mexicana, Link.?

determ. Scribner.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 3908. Eragrostis tenella, Beauv.

(*Poa tenella, L.*)

determ. Scribner.

Rinconcito, Depart. Santa Rosa, alt. 4000 pp.

M. Oct. 1892. Leg. Heyde et Lux.

## 3203. Gleichenia pubescens, H. B. K.

San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2718. Hemitelia Costaricensis, Mett.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 3219. Hemitelia Costaricensis, Mett.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 2709. Dicksonia cicutaria, Swz.

Palin, Depart. Amatitlan, alt. 3560 pp.

M. Feb. 1892. Leg. J. D. S.

## 3212. Dicksonia cicutaria, Swz.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 1446. Trichomanes Godmani, Hook.

Cubilguitz, Depart. Alta Verapaz, alt. 1200 pp.

M. Nov. 1890. Leg. von Türckheim.

## 1221. Trichomanes pinnatum, Hedw.

Palmilla, Depart. Zacapa.

1887. Leg. R. Walker.

## 2713. Trichomanes repens, Schott,

**var. stipitatum, Sturm.**

Acatepeque, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 2714. Trichomanes tenerum, Sprengl.

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Feb. 1892. Leg. J. D. S.

## 1203. Lindsaya Guyanensis, Dryand.

Palmilla, Depart. Zacapa.

1887. Leg. R. Walker.

## 2711. Adiantum Capillus-Veneris, L.

Palin, Depart. Amatitlan, alt. 3560 pp.

M. Feb. 1892. Leg. J. D. S.

## 2710. Adiantum Capillus-Veneris, L.

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Feb. 1892. Leg. J. D. S.

## 4078. Adiantum concinnum, H. B. K.

Cenaguilla, Depart. Santa Rosa, alt. 4000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 1175. Adiantum cristatum, L.

Depart. Peten.

1889. Leg. R. Walker.

## 1144. Adiantum fragile, Swz.

Depart. Peten.

1889. Leg. R. Walker.

## 969. Adiantum glaucophyllum, Hook.

Santiago, Depart. Zacatepequez, alt. 6500 pp.

1891. Leg. Rosalío Gómez.

## 3208. Adiantum glaucophyllum, Hook.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 1119. Adiantum Kaulfussii, Kunze.

Depart. Peten.

1889. Leg. R. Walker.

## 348. Adiantum macrophyllum, Swz.

Coatepeque, Depart. San Márcos, alt. 1491 pp.

M. Jan. 1892. Leg. W. C. Shannon.

## 2712. Adiantum macrophyllum, Swz.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 4422. Adiantum patens, Willd.

Buena Vista, Depart. Santa Rosa, alt. 5500 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 3209. Adiantum tenerum, Swz.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 1164. Adiantum tetraphyllum, Willd., forma acuminata, Kuhn.

Depart. Peten.

1889. Leg. R. Walker.

## 4421. Adiantum tetraphyllum, Willd., forma acuminata, Kuhn.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 3199. Cheilanthes farinosa, Kaulf.

Nebáj, Depart. Quiché, alt. 7000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 4099. Cheilanthes viscosa, Kaulf.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.
M. Sept. 1892. Leg. Heyde et Lux.

## 3192. Llavea cordifolia, Lagasca.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.
M. Apr. 1892. Leg. Heyde et Lux.

## 3198. Pellæa angustifolia, Baker.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.
M. Mart. 1892. Leg. Heyde et Lux.

## 4096. Pellæa angustifolia, Baker.

Cenaguilla, Depart. Santa Rosa, alt. 4000 pp.
M. Nov. 1892. Leg. Heyde et Lux.

## 2715. Pellæa intramarginalis, J. Sm.

Barranca Honda, Alotenango, Dep. Zacatepequez, alt. 4200 pp.
M. Mart. 1892. Leg. J. D. S.

## 4097. Pellæa intramarginalis, J. Sm.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.
M. Sept. 1892. Leg. Heyde et Lux.

## 978. Pellæa marginata, Baker.

Santiago, Depart. Zacatepequez, alt. 6500 pp.
1891. Leg. Rosalío Gómez.

## 1187. Pellæa rigida, Hook.

El Chato, Depart. Guatemala, alt. 4500 pp.
1887. Leg. R. Walker.

## 4080. Pteris aquilina, L.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.
M. Sept. 1892. Leg. Heyde et Lux.

## 3215. Pteris Cretica, L.

San Miguel Uspantán, Depart. Quiché, alt. 6500 pp.
M. Maj. 1892. Leg. Heyde et Lux.

## 2716. Pteris Cretica, L.

San Rafael, Depart. Zacatepequez, alt. 6500 pp.
M. Feb. 1892. Leg. J. D. S.

## 3214. Pteris longifolia, L.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.
M. Apr. 1892. Leg. Heyde et Lux.

## 3213. Pteris podophylla, Swz.

Chiul, Depart. Quiché, alt. 8000 pp.
M Apr. 1892. Leg. Heyde et Lux.

## 4420. Pteris podophylla, Swz.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.
M. Dec. 1892. Leg. Heyde et Lux.

## 3213B. Pteris quadriaurita, Retz.

Chiul, Depart. Quiché, alt. 8000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 4419. Pteris quadriaurita, Retz.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Dec. 1892. Leg. Heyde et Lux.

## 3205. Blechnum occidentale, L.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 3207. Blechnum occidentale, L.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 2717. Woodwardia radicans, Smith.

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Feb. 1892. Leg. J. D. S.

## 4092. Woodwardia radicans, Smith.

Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 3236. Asplenium abscissum, Willd.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3227. Asplenium achilleæfolium, Liebm.

San Miguel Uspantán, Depart. Quiché, alt. 6500 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3240. Asplenium auritum, Swz.

Santa Rosa, Depart. Santa Rosa, alt. 3500 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3221. Asplenium auritum, Swz., var. fœniculatum, Baker.

San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2727. Asplenium auritum, Swz., var. serratum, Baker.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 2726. Asplenium auritum, Swz., var. sulcatum, Baker.

Acatepeque, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 3232. Asplenium commutatum, Mett.

Chiul, Depart. Quiché, alt. 8000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2729. Asplenium crenulatum, Baker.

Barranca del Samalá, Depart. Retalhuleu, alt. 1700 pp.

M. Mart. 1892. Leg. J. D. S.

## 2725. Asplenium cuneatum, Lam.

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Feb. 1892. Leg. J. D. S.

## 3231. Asplenium cuneatum, Lam.

El Jute, Depart. Quiché, alt. 10,000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 1176. Asplenium formosum, Willd.

Depart. Peten.

1889. Leg. R. Walker.

## 3222. Asplenium formosum, Willd.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 1115. Asplenium lunulatum, Swz.

Depart. Peten.

1889. Leg. R. Walker.

## 3230. Asplenium lunulatum, Swz.

San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3234. Asplenium lunulatum, Swz.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 3233. Asplenium lunulatum, Swz., var. erectum, Baker.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2723. Asplenium monanthemum, L.

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Feb. 1892. Leg. J D. S.

## 3220. Asplenium monanthemum, L.

San Miguel Uspantán, Depart. Quiché, alt. 6500 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 3229. Asplenium monanthemum, L.

San Miguel Uspantán, Depart. Quiché, alt. 8000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3225. Asplenium monanthemum, L.

El Jute, Depart. Quiché, alt. 10,000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3261. Asplenium parvulum, Mart. et Gal.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 1552. Asplenium Riedelianum, Bong.

Pansamalá, Depart. Alta Verapaz, alt. 3800 pp.

M. Apr. 1889. Leg. J. D. S.

## 3228. Asplenium Serra, Langsd. et Fisch.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3226. Asplenium sessilifolium, Desv.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3235. Asplenium sessilifolium, Desv.

San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2724. Asplenium Shepherdi, Spreng.

Palin, Depart. Amatitlan, alt. 3560 pp.

M. Feb. 1892. Leg. J. D. S.

## 2728. Asplenium Shepherdi, Spreng.

Barranca del Samalá, Depart. Retalhuleu, alt. 1700 pp.

M. Apr. 1892. Leg. J. D. S.

## 2722. Asplenium Shepherdi, Spreng., var.?

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Feb. 1892. Leg. J. D. S.

## 1154. Asplenium Trichomanes, L.

Depart. Peten.

1889. Leg. R. Walker.

## 2730. Aspidium aculeatum, Swz.

Acatepeque, Depart. Zacatepequez, alt. 4300 pp.

M. Mart. 1892. Leg. J. D. S.

## 3251. Aspidium aculeatum, Swz.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 3239. Aspidium aculeatum, Swz.

Chiul, Depart. Quiché, alt. 8000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3241. Aspidium juglandifolium, Kunze.

San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3259. Aspidium juglandifolium, Kunze.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3238. Aspidium trifoliatum, Swz.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 249. Nephrodium amplum, Baker.

Santa Barbara, Depart. Sololá, alt. 1370 pp.

M. Aug. 1891. Leg. W. C. Shannon.

## 2739. Nephrodium amplum, Baker.

Volcan Acatenango, Depart. Zacatepequez, alt. 7000 pp.

M. Mart. 1892. Leg. J. D. S.

## 2731. Nephrodium amplum, Baker.

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Feb. 1892. Leg. J. D. S.

## 3250. Nephrodium amplum, Baker.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 2736. Nephrodium cicutarium, Baker.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 3265. Nephrodium cicutarium, Baker.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Jul. 1892. Leg. Heyde et Lux.

## 174. Nephrodium conterminum, Desv.

Pantaleon, Depart. Escuintla, alt. 1370 pp.

M. Jul. 1891. Leg. W. C. Shannon.

## 2738. Nephrodium conterminum, Desv.

Escuintla, Depart. Escuintla, alt. 1100 pp.

M. Mart. 1892. Leg. J. D. S.

## 3247. Nephrodium conterminum, Desv.

Zamorora, Depart. Santa Rosa, alt. 5500 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 4094. Nephrodium conterminum, Desv.

Rio Pinula, Depart. Santa Rosa, alt. 4000 pp.

M. Oct. 1892. Leg. Heyde et Lux.

## 3242. Nephrodium denticulatum, Hook.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3244. Nephrodium Filix-mas, Rich.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 4426. Nephrodium Karwinskyanum, Baker.

Rio de Los Esclavos, Depart. Santa Rosa, alt. 2500 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 3243. Nephrodium patens, Desv.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

3248. Nephrodium patens, Desv.
Zamorora, Depart. Santa Rosa, alt. 5500 pp.
M. Jul. 1892. Leg. Heyde et Lux.

2734. Nephrodium patens, Desv.,
var. stipulare, Baker.
San Felipe, Depart. Retalhuleu, alt. 2050 pp.
M. Apr. 1892. Leg. J. D. S.

4424. Nephrodium patens, Desv.,
var. stipulare, Baker.
Estanzuela, Depart. Santa Rosa, alt. 2500 pp.
M. Jan. 1893. Leg. Heyde et Lux.

4081. Nephrodium patulum, Baker,
forma vel. var. robustior.
Laguna de Ayarza, Depart. Jalapa, alt. 8000 pp.
M. Sept. 1892. Leg. Heyde et Lux.

242. Nephrolepis cordifolia, Presl.
Primavera, Depart. Sololá, alt. 760 pp.
M. Jul. 1891. Leg. W. C. Shannon.

1108. Nephrolepis cordifolia, Presl.
Depart. Peten.
Leg. R. Walker.

4098. Nephrolepis cordifolia, Presl.
Cenaguilla, Depart. Santa Rosa, alt. 4000 pp.
M. Oct. 1892. Leg. Heyde et Lux.

117. Nephrolepis exaltata, Schott.
Santa Barbara, Depart. Sololá, alt. 1370 pp.
M. Aug. 1891. Leg. W. C. Shannon.

2719. Nephrolepis exaltata, Schott.
San Felipe, Depart. Retalhuleu, alt. 2050 pp.
M. Apr. 1892. Leg. J. D. S.

2741. Polypodium angustifolium, Swz.
San Rafael, Depart. Zacatepequez, alt. 6500 pp.
M. Feb. 1892. Leg. J. D. S.

3262. Polypodium angustifolium, Swz.
San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.
M. Maj. 1892. Leg. Heyde et Lux.

4087. Polypodium angustifolium, Swz.,
forma (*P. ensiforme, Willd.*)
Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.
M. Aug. 1892. Leg. Heyde et Lux.

944. Polypodium angustum, Mett.
Santiago, Depart. Zacatepequez, alt. 6500 pp.
1891. Leg. Rosalío Gómez.

## 3264. Polypodium angustum, Mett.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 3258. Polypodium cultratum, Willd.,

var. reclinatum, Baker.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 4093. Polypodium dasypleuron, Kunze

in Linnæa ix. 43.

Cenaguilla, Depart. Santa Rosa, alt. 4000 pp.

M. Oct. 1892. Leg. Heyde et Lux.

## 276. Polypodium elasticum, Rich.

Las Animas, Depart. Suchitepequez, alt. 650 pp.

M. Oct. 1891. Leg. W. C. Shannon.

## 4083. Polypodium elasticum, Rich.

Ojo de Agua, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 1116. Polypodium incanum, Swz.

Depart. Peten.

1889. Leg. R. Walker.

## 4089. Polypodium incanum, Swz.

Santa Rosa, Depart. Santa Rosa, alt. 4000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 2742. Polypodium lanceolatum, L.

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Feb. 1892. Leg. J. D. S.

## 3253. Polypodium lanceolatum, L.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3263c. Polypodium legionarium, Baker.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3254. Polypodium moniliforme, L.,

var. rigescens, Hook.

Santa Rosa, Depart Santa Rosa, alt. 3000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 427. Polypodium neriifolium, Schk.

Las Animas, Depart. Suchitepequez, alt. 650 pp.

M. Sept. 1891. Leg. W. C. Shannon.

## 2745. Polypodium Phyllitidis, L.;

non Mart. et Gal.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 3664. Polypodium plebeium, Schlecht.

Volcan Pacaya, Depart. Amatitlan, alt. 8000 pp.

M. Jul. 1892. Leg. W. C. Shannon.

## 3255. Polypodium plebeium, Schlecht.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 446. Polypodium plesiosorum, Kunze.

San Lorenzo, Depart. San Márcos, alt. 9191 pp.

M. Jan. 1892. Leg. W. C. Shannon.

## 3263. Polypodium plesiosorum, Kunze.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 4090. Polypodium plesiosorum, Kunze.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 2732. Polypodium rude, Kunze.

San Rafael, Depart. Zacatepequez, alt. 6500 pp.

M. Feb. 1892. Leg. J. D. S.

## 2744. Polypodium Skinneri, Hook.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 3252. Polypodium Skinneri, Hook.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 4084. Polypodium squamatum, L.

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 945. Polypodium subpetiolatum, Hook.

Santiago, Depart. Zacatepequez, alt. 6500 pp.

1891. Leg. Rosalío Gómez.

## 960. Polypodium subpetiolatum, Hook.

Santiago, Depart. Zacatepequez, alt. 6500 pp.

1891. Leg. Rosalío Gómez.

## 3263[B]. Polypodium subpetiolatum, Hook.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3256. Polypodium taxifolium, L.

San Miguel Uspantán, Depart. Quiché, alt. 6500 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2733. Polypodium tetragonum, Swz.

San Felipe, Depart. Retalhuleu, alt. 2050 pp.

M. Apr. 1892. Leg. J. D. S.

## 3257. Polypodium thysanolepis, A. Br.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 2743. Polypodium Xalapense.

(*Campyloneuron Xalapense, Fee.*)

Volcan de Fuego, Depart. Zacatepequez, alt. 5500 pp.

M. Mart. 1892. Leg. J. D. S.

## 3200. Notholæna brachypus, J. Smith.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Jul. 1892. Leg. Heyde et Lux.

## 4091. Notholæna brachypus, J. Smith.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Nov. 1892. Leg. Heyde et Lux.

## 3193. Gymnogramme calomelanos, Kaulf.

Chiul, Depart. Quiché, alt. 8000 pp.

M. Maj. 1892. Leg. Heyde et Lux.

## 4100. Gymnogramme calomelanos, Kaulf.

Rio Pinula, Depart. Santa Rosa, alt. 4000 pp.

M. Oct. 1892. Leg. Heyde et Lux.

## 4079. Gymnogramme elongata, Hook.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 4086. Gymnogramme pedata, Kaulf.

Jumaytepeque, Depart. Santa Rosa, alt. 6000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 1447. Gymnogramme pumila, Spreng.

Cubilguitz, Depart. Alta Verapaz, alt. 1200 pp.

M. Nov. 1890. Leg. von Türckheim.

## 3201. Antrophyum ensiforme, Hook.

San Miguel Uspantán, Depart. Quiché, alt. 6500 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3197. Vittaria lineata, Swz.

San Miguel Uspantán, Depart. Quiché, alt. 6000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3190. Hemionitis pinnatifida, Baker,

forma laciniis plerumque 2–3-jugis.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 2720. Acrostichum alienum, Swz.

Barranca del Samalá, Depart. Retalhuleu, alt. 1700 pp.

M. Apr. 1892. Leg. J. D. S.

## 2721. Acrostichum alienum, Swz.

Barranca de Eminencia, Depart. Amatitlan, alt. 1400 pp.

M. Feb. 1892. Leg. J. D. S.

## 3217. Acrostichum Aubertii, Desv.

Santa Rosa, Depart. Santa Rosa, alt. 3500 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 3218. Acrostichum latifolium, Swz.

Chiul, Depart. Quiché, alt. 8000 pp.

M. Jun. 1892. Leg. Heyde et Lux.

## 4077. Acrostichum latifolium, Swz.

Chupadero, Depart. Santa Rosa, alt. 5000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 3216. Acrostichum peltatum, Swz.

San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.

M. Apr. 1892. Leg. Heyde et Lux.

## 4098[B]. Acrostichum pilosum, H. B. K.

Chupadero, Depart. Santa Rosa, alt. 5000 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 519. Acrostichum viscosum, Swz.

(*A. conopodium, Mett. in herb. Kunz. test. Luerssen.*)

Coban, Depart. Alta Verapaz, alt. 4300 pp.

M. Aug. 1880. Leg. von Türckheim.

## 3191. Osmunda regalis, L.

Laguna de Carrizal, Depart. Santa Rosa, alt. 5000 pp.

M. Jul. 1892. Leg. Heyde et Lux.

## 1123. Aneimia adiantifolia, Swz.

Depart. Peten.

1889. Leg. R. Walker.

## 3202. Aneimia hirsuta, Swz.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Mart. 1892. Leg. Heyde et Lux.

## 4095[B]. Aneimia hirsuta, Swz.

Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.

M. Aug. 1892. Leg. Heyde et Lux.

## 1145. Aneimia Mexicana, Klotzsch,

forma (*A. speciosa, Presl.*)

Depart. Peten.

1889. Leg. R. Walker.

## 4082. Aneimia Phyllitidis, Swz.

Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.

M. Sept. 1892. Leg. Heyde et Lux.

## 4095. Aneimia tomentosa, Swz.,
forma vel var. decomposita lobis rotundatis.
Cerro Gordo, Depart. Santa Rosa, alt. 3500 pp.
M. Aug. 1892. Leg. Heyde et Lux.

## 3194. Equisetum giganteum, L.
Santa Rosa, Depart. Santa Rosa, alt. 3000 pp.
M. Apr. 1892. Leg. Heyde et Lux.

## 1191. Lycopodium cernuum, L.
Palmilla, Depart. Zacapa.
1887. Leg. R. Walker.

## 3195. Lycopodium clavatum, L.
San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.
M. Apr. 1892. Leg. Heyde et Lux.

## 3196. Lycopodium complanatum, L.
San Miguel Uspantán, Depart. Quiché, alt. 7000 pp.
M. Feb. 1892. Leg. Heyde et Lux.

# APPENDIX.

## NOMINA INSERENDA.

461. Ranunculus pilosus, H. B. K.

1661. Ranunculus pilosus, H. B. K.

1236. Bocconia frutescens, L.,
var. cernua, DC. (*Calques des Dessins du Fl. Mex. 14!*)

990. Saurauja macrophylla, Linden.

2171. Saurauja scabrida, Hemsl.

1939. Gaya minutiflora, Rose, n. sp. ined.

1669. Oxalis divergens, Benth.

2071. Trichilia cuneata, Radlkf.
in Sitzungsber. K. Bayer. Acad. ix. 642.
determ. C. DeCandolle.

710. Rhamnus capreæfolia, Schlecht.,
var. discolor, Donnell Smith
in Botan. Gaz. xviii. 200.

2087. Spondias Radlkoferi, Donnell Smith
in Botan. Gaz. xvi. 194.

2141. Rubus poliophyllus, Focke
in Botan. Gaz. xviii. 202.

32. Psidium molle, Bertol.

2166. Fuchsia mixta, Hemsl.

1312. Hydrocotyle grumosa, DC.
(*Micropleura renifolia, Lag.*)
determ. Rose.

1743. Oreopanax oligocarpum, Donnell Smith
in Botan. Gaz. xvi. 194.

1985. Basanacantha spinosa, Schum.,
var. (*B. calycina, Schum.*)

52. Eupatorium ageratifolium, DC.,
var. purpureum, Coult. in Botan. Gaz. xvi. 98.

124. Melampodium divaricatum, DC.

930. Jægeria hirta, Less.

22. Lobelia ruderalis, Willd. apud Rœm. et Sch.
(*L. micrantha, H. B. K.*)
Plantam nostram sub L. Türckheimii, Vatke, editam benevole comparavit M. Buser ill. custos herb. Candolleani cum exemplaribus L. micranthæ, H. B. K., ab A. DC. comprobatis, atque cum typo L. parvifloræ, Mart. et Gal., in herb. Bruxell. conservato. Utrisque optime congruunt exemplaria Tuerckheimiana. Cetera synonyma sunt L. subtilis, Kunth; L. Draba, Willd.; L. Türckheimii, Vatke ined. An conjugendæ sunt L. minutiflora, Kunze; L. Michoacana, Robinson; Laurentia ovatifolia, Robinson? Nomen illud Willdenovianum prioritate gaudet.

2106. Lobelia ruderalis, Willd. apud Rœm. et Sch.
(*L. micrantha, H. B. K.; L. parviflora, Mart. et Gal.; L. Turckheimii, Vatke ined.*)

2190. Arbutus varians, Benth.

40. Gaultheria odorata, H. B. K.

1691. Gaultheria odorata, H. B. K.

1537. Parathesis crenulata, Hook. fil.,
var. ferruginea, Œrst.

1693. Parathesis melanosticta, Hemsl.,
forma majusculiflora.

1365. Parathesis micranthera, Donnell Smith
in Botan. Gaz. xviii. 205.

1442. Parathesis pleurobotryosa, Donnell Smith
in Botan. Gaz. xvi. 195.

2184. Bumelia pleistochasia, Donnell Smith
in Botan. Gaz. xviii. 4.

1748. Tabernæmontana citrifolia, Jacq.
determ. Rose.

2404. Tabernæmontana Donnell-Smithii, Rose
in Botan. Gaz. xviii. 206.

2405. Tabernæmontana Donnell-Smithii, Rose
in Botan. Gaz. xviii. 206.

1940. Philibertia crassifolia, Hemsl.

1895. Buddleia Americana, L.

1197. Buddleia floccosa, Kunth.

2120. Buddleia floccosa, Kunth.

982. Lœselia glandulosa, Don.

1201. Heliotropium coriaceum, Lehm.

1438. Bassovia macrophylla, Coult.
(*Witheringia macrophylla, H. B. K.*)
determ. Coulter.

1842. Bassovia macrophylla, Coult.
(*Witheringia macrophylla, H. B. K.*)
determ. Coulter.

1109. Utricularia Verapazensis, Morong
in Botan. Gaz. xviii. 209.

716. Achimenes grandiflora, DC.

1030. Macfadyena simplicifolia, Donnell Smith
in Botan. Gaz. xvi. 198, t. xviii.

2031. Thyrsacanthus strictus, Nees.

1993. Thyrsacanthus strictus, Nees,
forma evolutior. (*Justicia corymbulosa, Bertol.?*)

2111. Ægiphila falcata, Donnell Smith
in Botan. Gaz. xviii. 7.

1770. Hyptis atrorubens, Poit.

337. Hyptis capitata, Jacq.,
forma (*H. Guatemalensis, Vatke ined.*)

477. Hyptis lilacina, Schiede et Deppe.

1898. Hyptis lilacina, Schiede et Deppe.

110. Salvia cyanea, Benth.

1192. Salvia cyanea, Benth.

1679. Salvia cyanea, Benth.

2187. Salvia cyanea, Benth.

2108. Salvia tiliæfolia, Vahl.

94. Plantago Galeottiana, Dcne.

1922. Iresine canescens, Humb. et Bonpl.

243. Polygonum Meisnerianum, Cham. et Schl.,
var. Beyrichianum, Meisn.
(*P. Turckheimii, Vatke ined.*)
determ. Small.

2189. Quercus brachystachys, Benth.
(*Q. splendens, Nee?*)

1967. Quercus lingulæfolia, Liebm.

2186. Quercus Mexicana, Humb. et Bonpl.?

1968. Quercus tomentosa, Willd., var.?

1671. Zephyranthes carinata, Herb.,
var. brevipes.
determ. Baker.

1256. Rhynchospora Orizabensis, Clarke,
n. sp. ined.

1261. Rhynchospora robusta, Bœckl.
determ. Clarke.

1258. Rhynchospora Tuerckheimii, Clarke,
n. sp. ined.

2435. Adiantum glaucophyllum, Hook.

1167. Pellæa marginata, Baker.

2445. Asplenium Shepherdi, Spreng.

2459. Nephrodium conterminum, Desv.

627. Nephrodium patens, Desv.,
var. invisum, Baker.

[From Botanical Gazette, Vol. XVIII.]

# Undescribed plants from Guatemala. X.

JOHN DONNELL SMITH.

WITH PLATE I.

**Sloanea pentagona** (series AXILLIFLORÆ BRACHYSTACHYÆ Benth. Journ. Linn. Soc. v. Suppl. 62).—Ovary excepted glabrous: leaves coriaceous, nitid, entire, oblong ($7–9 \times 2\frac{1}{4}–3^{in}$), acuminate, base obtusish, midrib and six to seven pairs of long-ascending nerves salient on both surfaces with distinct transverse veinlets, petioles short ($3^{l}$): racemes subsessile, suppressed, few-flowered; pedicels incrassate, angular, ($6–8^{l}$), exceeding ovoid alabastra: perianth 4–5-merous: sepals thick, ovate-lanceolate, colored within: petals shorter, lanceolate: stamens bi-seriate, lightly cohering at base, linear anthers thrice exceeding filament, connective mucronate: ovary velvety, pyramidate, concavely 5-angled, prolonged into short simple style, ovules in superposed pairs: developed flowers and fruit not seen.—A large tree with the habit of *Myrodia*, discovered by Baron von Türckheim on his estate at Pansamalá, Dept. Alta Verapaz, alt. $4{,}000^{ft}$, Jan. 1889, (ex Pl. Guatemal. qu. edid. J. D. S. 1,411).

**Xanthoxylum foliolosum** (§PTEROTA Endl.).—Scandent, armed with short recurved prickles, blotched with exudations, glabrous throughout: leaves 10–15-jugate, rachis narrowly margined and aculeate; leaflets opposite, subsessile, shortly oblong ($6 \times 4^{l}$), apex round, base truncate and biglandular, coriaceous, veins obsolete above, crenatures glandular, the odd leaflet ovate-oblong and longer, the lower pairs roundish and smaller: panicles axillary and terminal, a third as long as leaves, axes divaricate: sepals triangular, petals thrice longer, gynophore very short, carpids one to two and punctate: coccules one to two, nearly distinct, sessile, globose ($2\frac{1}{2}^{l}$), subequalling pedicels, glandular-tuberculate, endocarp adnate, epidermis of globose seed fleshy.—*X. Pterota* HBK., nearest in habit and technical characters, is distinct by obovate and less numerous

leaflets, long-stipitate and single coccules, etc.—San Rafael, Dept. Zacatepequez, alt. 6,500ft, Febr. 1892, J. D. S., (ex Pl. cit. 1,319.)

**Ouratea podogyna** (series OOCARPÆ §A, Engl. Fl. Brasil. XII2. 302).—Leaves elongate-oblong (12×3in), caudately acuminate, narrowed to short petiole (2—3l), obsoletely serrulate above middle, coriaceous, dull-green above, paler beneath; ascending nerves alone visible, impressed on upper surface, prominent on lower: slender panicle half as long as leaves, pedicels single or geminate and exceeding ovoid-lanceolate buds: sepals atrofuscous, caducous in anthesis, ovate-oblong ($3\frac{1}{4}\times 1\frac{1}{4}$l), the three interior with scarious margns: petals obovate-oblong (4×2l), exunguiculate: stamens equalling sepals, sessile, subulate-tetragonal, lightly rugulose: gynophore slender ($\frac{3}{4}$l), 5-angulate: ovary half as long and twice broader, carpids short-oval and laterally compressed, style equalling petals: drupe not seen.—A tree 15–18ft high, with leaves resembling in form and size those of *O. gigantophylla* Engl., but with flowers more nearly those of *O. oliviæformis* Engl. *O. Guatemalensis* Engl., var. (?) Watson, differs by smaller and membranaceous leaves with close horizontal veins, nearly simple raceme, short and thick gynophore, etc., (no. 39, Watson's Fl. Guat.!)—Pansamalá forest, alt. 3,800ft, Sept. 1886, von Türckheim, (ex Pl. cit. 1,034).

POTENTILLA DONNELL-SMITHII, described by Dr. Focke in BOTAN. GAZ. XVI. 3, is now identified by him as *P. heterosepala* Fritsch, whose publication during the previous year in *Botan. Jahrb.* XI. 314 had been overlooked.—Collected also by Dr. W. C. Shannon, Ass't Surg. U. S. A., associate of the Intercontinental Railway Commission, at Chichoy, Dept. Chimaltenango, alt. 9,000ft, Mch. 1892, (ex Pl. cit. 368); and by Messrs. Heyde & Lux at Chiul, Dept. Quiché, alt. 8,000ft, Apr. 1892, (ex Pl. cit. 3,321).

*Fuchsia arborescens* Sims, var. (?) **megalantha.**—Lower leaves quaternate: flowers nearly twice larger than in type: the greater stamens exceeding sepals, the lesser equalling style, anthers large ($1\frac{1}{2}$l): stigma minute, ovary ellipsoid.—This is perhaps merely a strongly marked form of heterogonous dimorphism. The typical plant (perhaps only the more fertile form) was distributed as nos. 182 and 2,139 of this series.—Slopes of the Volcan de Acatenango, Dept. Zacatepequez, alt. 7,000ft, Mch. 1892, J. D. S., (ex Pl. cit. 2,469).

**Hauya Rodriguezii.**—Younger leaves, nerve-axils of the older, and ovaries, cano-pubescent; otherwise glabrate: leaves rhomboid-oval to elliptical ($3\frac{1}{2}$–$4\frac{3}{4} \times 2$–$2\frac{3}{4}^{in}$), abruptly acuminate, obtusely or acutely angled at unequal base, eight to nine lateral nerves ascending straight to marginal arches: flowers large: lobes of calyx equalling tube ($2\frac{1}{2}$–$3^{in}$), prolonged to subulate tips: petals two-thirds as long, oval: awns of anthers filiform ($2\frac{1}{2}^{l}$): style equalling petals, stigma globose ($4^{l}$): capsule subsessile, large ($2$–$2\frac{1}{4}^{in}$), smooth, valves plane.—Compared at Kew by Mr. Hemsley with the originals of described species, and not identified. *H. elegans* Hemsl., as represented in this series of plants by nos. 2,527 and 2,528 determined by that gentleman, is a closely related species, differing chiefly by velvety or sericeous indument, round-oval leaves abruptly short-acuminate and with a rounded or subcordate base, relatively shorter calyx-lobes and longer petals and style.—A tree with a stout trunk, $30^{ft}$ high.—Acatepeque, Dept. Zacatepequez, alt. $4,300^{ft}$, Mch. 1892, J. D. S., (ex Pl. cit. 2,529). Named for Sr. lcdo. Don Juan J. Rodriguez, former Minister of the Interior, a distinguished student of *Lepidoptera*, in memory of hospitable and courteous attentions during my sojourn on his estates of Capetillo and Acatepeque situated on the southeastern slopes of the Volcan de Fuego.

**Hauya Heydeana.**—Arborescent ($18^{ft}$), glabrous: leaves conterminously lanceolate ($3\frac{1}{2}$–$4\frac{1}{2} \times 1$–$1\frac{1}{4}^{in}$), tipped with a gland, blotched with exudations: flowers small for the genus ($2\frac{1}{2}$–$2\frac{3}{4}^{in}$), peduncles twice to thrice longer than petioles ($12$–$18^{l}$): lobes of calyx shortly tipped, narrowly linear, exceeding tube: petals as long, twice broader, lanceolate: stigma ellipsoid: capsule about an inch long with narrow ($2^{l}$) and plane valves.—A well marked species as respects both foliage and flowers, and especially distinct by the peduncle exceptional for the genus.—Beleú, Dept. Alta Verapaz, alt. $5,000^{ft}$, Apr. 1892, Heyde & Lux, (ex Pl. cit. 2,935).—Dedicated to Sr. pbro. Don Enrique Th. Heyde, parish priest in Santa Rosa, as a slight but very sincere acknowledgment of my obligations to him for an extensive series of plants with duplicates, collected by him and his nephew, Don Ernesto Lux, in the departments of Quiché, Santa Rosa and Jalapa. Important additions to our knowledge of the Guatemalan flora may be expected from the further explorations, proposed by these gentlemen, of regions unknown to botanists, difficult of access,

and inhabited by indigenous races unfriendly to all strangers save such as visit them under the auspices of the church.

**Parathesis micrantha.** (*Ardisia micrantha* Donnell Smith BOTAN. GAZ. XIV. 26; not of HBK.).—In transferring this species to what recently received material shows to be its correct genus, the specific name preoccupied in *Ardisia* may stand in *Parathesis*, and indicates a character, alike abnormal in both genera, of minute cordate anthers. The bractlets are also seen to be oblong and ciliate.—San Miguel Uspantán, Dept. Quiché, alt. 6,000$^{ft}$, Apr. 1892, Heyde & Lux, (ex Pl. cit. 3,020).

**Bumelia pleistochasia.**—Leaves smooth and shining, coriaceous, elliptical ($3–3\frac{1}{2} \times 1\frac{1}{4}–1\frac{1}{2}^{in}$), obtusely acuminate, base acutely contracted into petiole ($4–5^{l}$): fascicles densely flowered, equalling petiole: calyx obconic, as long as pedicel, incrassate segments round-ovate: appendages of corolla lateral, obliquely lanceolate, denticulate; proper lobes twice longer, oval, subentire: staminodes half the size of lobes, oval, fimbriate; ovary glabrous.—San Lucas, Dept. Zacatepequez, alt. 5,500$^{ft}$, Apr. 1890, J. D. S., (ex Pl. cit. 2,184), distributed as *B. persimilis* Hemsl.—Palmer's no. 1,123 Fl. Mex. has been referred more correctly to that species by Mr. J. N. Rose, assistant botanist to the U. S. National Herb. With somewhat similar leaves it differs from the above by pubescence, smaller fascicles of less congested pedicels, cylindrical half-smaller calyx, oblong sepals, elongate lobes of corolla, nearly as long lanceolate staminodes, pilose ovary, etc.

**Bumelia leiogyna.**—Arborescent and spinose like the preceding, glabrous except the younger parts: leaves membranaceous, veinage distinct, elliptical-oblong to lanceolate ($2\frac{1}{2}–3 \times 1^{in}$), apex obtusish, tapering acutely to short petiole: flowers minute ($2^{l}$), subequalling pedicels and petiole, 6–10-fasciculate: calyx ovoid, half as long as pedicel; segments ovate with scariose margins, the interior ones puberulent: lobes of corolla obovate, denticulate, patent; appendages minute, subulate from an oval and lacerate base: staminodes also minute, rhomboidal, fimbriate: ovary glabrous, style shortly subulate.—The descriptions of *B. ferox* Cham. et Schl. indicate the nearest affinity, but ascribe to it opaque smaller and more generally obovate leaves, spatulate-lanceolate staminodes; and the ovary may be presumed to be normal and therefore hirsute.—Capetillo, Dept. Zacatepequez, alt. 4,500$^{ft}$, Mch. 1892, J. D. S., (ex Pl. cit. 1,451).

**Styrax conterminum.**—Indument leprous, nowhere stellate, scales lacerate, ferruginous on branchlets petioles and calyx: leaves elliptical-oblong ($5–6 \times 1\frac{3}{4}–2^{in}$), conterminously acuminate, long-petiolate ($9–11^{l}$), coriaceous, scales of upper surface sparse, of lower continuous and silvery sprinkled with red: racemes chiefly simple, twice exceeding petioles; flowers large ($7^{l}$), pedicels as long and minutely bracteolate at base and middle: corolla silvery, thrice exceeding the minutely toothed calyx: filaments half-connate, twice longer than the short ($2^{l}$) and oblong anthers, exbarbate within, their exterior beset with fimbriate scales.—The other three species of the lepidote group, all South American, can be distinguished by their leaves: in *S. ovatum* A. DC. ovate-lanceolate (838 Rusby Fl. S. Am.! 467 Bang Pl. Boliv.!): in *S. cordatum* A. DC. cordate-ovate: in *S. leprosum* Hook. et Arn. obovate-oblong and small (II. 46 ex herb. Regnell.!).—A small tree; San Miguel Uspantán, Dept. Quiché, alt. $6,000^{ft}$, Apr. 1892, Heyde & Lux, (ex Pl. cit. 2,915).

**Ehretia Luxiana.**—Branchlets and axes of inflorescence angulate, beset with linear red lenticels: leaves tuberculate at their axils, glabrous, oval with obtuse ends or elliptical with somewhat acuminate apex and more acute base ($2\frac{1}{4}–4\frac{1}{4} \times 1\frac{1}{2}–2\frac{1}{4}^{in}$), serrate above middle: panicle terminal, shorter than leaves, corymbose, densely flowered, slightly pubescent: flowers among the smallest of the genus ($3^{l}$): calyx a third as long, campanulate, broadly and obtusely lobed to middle: lobes of corolla exceeding tube, oblong, revolute.—Habit and inflorescence are those of *E. Mexicana* Watson (3,085 Pringle Fl. Mex.!), which differs by hispid lanceolate leaves, and still smaller flowers with sharply partite calyx and shortly lobed corolla.—Arborescent ($15^{ft}$). Called by the Indians "Pepi Nanci."—San Miguel Uspantán, alt. $6,000^{ft}$, Apr. 1892, Heyde & Lux, (ex Pl. cit. 3,065).

**Juanulloa Sargii** (§ EUJUANULLOA Dun. in DC. Prodr.).—Leaves membranaceous, glabrate above, sprinkled beneath with stellate pubescence, obovate to rhomboidal or elliptical ($5–7 \times 2–4^{in}$), apex rounded, base cuneate, petioles short ($3^{l}$) and tomentose: peduncles axillary and terminal, elongated ($3–5^{in}$), forking, coriaceous flowers racemose on dichotomous flexuose axes of panicle: calyx ochraceous-tomentose, red within, campanulate, contracted into short ($3–4^{l}$) pedicel; partitions elliptical-oblong ($10 \times 3\frac{1}{2}^{l}$), acute, two-thirds coher-

ing, in fruit separating: corolla more than twice longer, inflated above middle, aureate-pubescent, red within: anthers linear ($6^{l}$), more than half as long as filament: berry globose-ovoid ($10^{l}$), seeds oblong and foveolate.—A sarmentose shrub 4–5$^{ft}$ high, with foliage crowded toward ends of the short branchlets, scarred with verrucose articulations of fallen leaves and flowers.—Banks of a brook near Escuintla, Dept. Escuintla, alt. 1,100$^{ft}$, Mch. 1892, J. D. S., (ex Pl. cit. 1,467). —The name proposed is that of my esteemed friend, Mr. Francis C. Sarg, consul of the German Empire for Guatemala, an accomplished naturalist, who has contributed valuable material to the entomological volumes of *Biologia Centrali-Americana.*

EXPLANATION OF PLATE I.—Fig. 1, flowering branch. Fig. 2, fruiting panicle. Fig. 3, flower exposed with corolla removed. Fig. 4, corolla laid open. Fig. 5, pistil. Fig. 6, fruit. Fig. 7, seed. (Figs. 1–4 are natural size; the others are variously magnified.)

**Tynanthus Guatemalensis.**—Undeveloped leaves, axes of inflorescence, and corolla, cano-furfuraceous: leaves nearly glabrous, twice exceeding common petiole, seldom cirrhose; leaflets more usually three, long-petiolulate (6–11$^{l}$), elliptical ($2\frac{1}{4}$–$3 \times 1^{in}$), caudately acuminate, apex blunt, membranaceous, the terminal the greatest, with half-longer petiolule and an acute base, the lateral obliquely rounded at base: thyrsi terminal and geminate or becoming axillary, shorter than leaves, primary axes brachiate, of cymules rectangular-divaricate and capillary, bractlets minutely subulate: calyx campanulate, transversely truncate, teeth and nerves obsolete: corolla more than thrice longer ($3$–$3\frac{1}{2}^{l}$), white, labiate to middle, furfuraceous lobes of reflexed anterior lip orbicular and unequal, elsewhere within glabrous: stamens and minute ($\frac{3}{4}^{l}$) inappendiculate staminode equally inserted near base of tube, glabrous: ovary conic, cano-hirsute: capsule not seen.—According to Prof. Bureau's grouping of other species, all South American, this is to be collocated with *T. Goudotiana* Bur., which is distinguishable by an obliquely truncate calyx with a large posterior tooth.—Climbing over trees and flowering profusely.—Banks of Rio Ocosito, Dept. Quezaltenango, alt. 250$^{ft}$, Apr. 1892, J. D. S., (ex Pl. cit. 1,488).

**Schlegelia cornuta.**—Epiphytal, procumbent, branches scabrid with setose tubercles and pilose: leaves obovate ($2\frac{1}{2}$–$4\frac{1}{4} \times 1\frac{3}{4}$–$2\frac{1}{2}^{in}$), apex rounded or retuse, tapering to short petiole,

thick-coriaceous, smooth and shining, margins revolute, nerves few and robust: peduncles axillary, short (3–6$^{l}$), pilose; pedicels 3–7-fasciculate, half or two-thirds as long as flowers: tube of calyx obpyramidate, pentagonal, lobes twice longer (4–5$^{l}$) and subulate by conduplicately cohering margins: corolla evenly cylindrical (15–17 × 2½$^{l}$), throat scarcely ampliate, lobes subequal (2$^{l}$): stamens included, twice exceeding staminode, insertion barbate, anthers reniform by diverging oval cells: disk none: berry depressed-globose (4 × 5$^{l}$), fleshy; seeds ten to twelve, scariose-alate, enveloped in fibrose pulp.— A pseudo-parasitic shrub, not repent.—San Miguel Uspantán, alt. 8,000$^{ft}$, Apr. 1892, Heyde & Lux, (ex Pl. cit. 3,044).

**Ægyphila falcata.**—Branchlets tetragonal, thickened at nodes, smooth: petioles brachiate, canaliculate, short (6–9$^{l}$); leaves chartaceous, nitid, faintly punctate, oval (7–9 × 4–5$^{in}$), the younger ovate-oblong, each end broadly rounded and abruptly short-acuminate, falcate, base conduplicate, midrib salient beneath, costal nerves robust: axillary cymes half-equalling leaves and long-pedunculate, the terminal thyrsoid and brachiate, nodes complanate, foliaceous bracts lanceolate, axes fastigiate, bractlets subulate: flowers 4-merous, subdiclinous, dimorphous, puberulent, shortly pedicellate: calyx obpyramidate, mouth nearly truncate: corolla reddish-yellow, hypocraterimorphous, narrow tube one to four times as long as calyx, limb ampliate (2½$^{l}$), stamens all more or less polleniferous, the semi-abortive included in short corolla, the others twice exceeding elongate corolla.— A symmetrical tree 30–40$^{ft}$ high, with a habit other than that of *Æ. elata* Swz. by its foliage and abundantly axillary inflorescence, and with the dimorphous flowers of *Æ. arborescens* Vahl.— Escuintla, alt. 1,100$^{ft}$, Apr. 1890, J. D. S. (ex Pl. cit. 2,111), distributed as *Æ. elata* Swz.: San Felipe, Depart. Retalhuleu, alt 2,000$^{ft}$, Apr. 1892, J. D. S., (ex Pl. cit. 1,479).

# Undescribed plants from Guatemala. XI.

JOHN DONNELL SMITH.

WITH PLATES XXI–XXIII.

This paper includes descriptions contributed by various botanists, who are kindly assisting in the elaboration of the plants of the series.

**Capparis Heydeana** (Subgen. CYNOPHALLA Eichl. in Fl. Brasil.)—Glabrate, axils eglandular: stipules minute; leaves obovate-oblong to elliptical-oblong ($4–5 \times 1\frac{1}{4}–1\frac{3}{4}^{in}$), acuminate, midrib excurrent, base acute, canaliculate petiole an inch or more long: flowers from axils of reduced leaves composing terminal short racemes; pedicels stout, exceeding petioles, apex incrassate: sepals oblong ($8–10^{l}$), obtuse: petals obovate-spatulate ($2\frac{1}{4}–2\frac{1}{2} \times \frac{3}{4}^{in}$): stamens scarcely as long, 6; carpophore equalling petals, ovary 2-locular: glands of disc distinct, triangular.—Remarkable in the genus by the large petals and in the sub-genus by the few stamens. Prof. Radlkofer, to whom this plant was submitted for comparison, calls attention to the accordance of its anatomical characters with those of *Cynophalla;* he observes the presence of soluble crystals in the cells of the upper and lower epidermis of the leaf such as occur in *C. Cynophallophorus* L., *C. polyantha*, Tr. et Planch. and other allied species (cf. Vesque in Ann. sc. nat. 6$^{me}$ Sér. 103, t. xiii).—Tree $30–45^{ft}$ high, mountains overhanging Lake Ayarza, Depart. Jalapa, alt. $8,400^{ft}$, Sept. 1892, Heyde & Lux, (ex Pl. Guatemal. qu. edid. J. D. S. 4,112).

**Xylosma Quichense.**—Arborescent ($10–15^{ft}$), unarmed, pubescent: leaves oblong-elliptical ($3\frac{1}{2}–5 \times 1–1\frac{1}{2}^{in}$), contracted-acuminate, base obtuse, upper surface shining and excepting nerves smooth, incurved-serrate, shortly petiolate: racemes solitary or 2–3-fasciculate, simple or paniculate, 3–6 times

exceeding petiole, scaly bracteose, 10–20-flowered, pedicels bracteolate above base, bracteoles linear-lanceolate (1–2$^{l}$): sepals 4–6, in anthesis broadly ovate, at length elliptical-oblong (2$^{l}$), glabrous, naked: glands obpyramidate, subconnate in a crenate cupuliform annulus: stamens numerous (20–35), not exceeding sepals: pistillate flowers and berries not seen.—*X. spiculiferum* Tr. et Planch., the only other species described with unisexual distinctly racemed and large-sepalous flowers, differs by spines, leaves ovate to orbicular-cordate, ciliate sepals, longer stamens, etc.—San Miguel Uspantán, Dept. Quiché, alt. 6,000$^{ft}$, Mch. 1892, Heyde & Lux (ex Pl. cit. 3,066).

Var. **subalpina**.—Glabrous excepting racemes, branchlets red and glandular-lenticellate: leaves ovate-elliptical, shorter, thicker: bracteoles colored, semi-sheathing, glandular-denticulate, subequalling pedicels.—Forests near El Jute, Depart. Quiché, alt. 10,000$^{ft}$, Apr. 1892, Heyde & Lux, (ex Pl. cit. 3,064).

ARENARIA ALSINOIDES Willd., var. **ovatifolia.**—Leaves pilose, ovate-acuminate, base rounded or cuneate, subsessile: petals twice larger (5$^{l}$) than sepals: seeds numerous (18–30), punctulate, red.—Volcan de Agua, Dept. Zacatepequez, alt. 10,000$^{ft}$, June 1892, Dr. W. C. Shannon, U. S. A., (ex. Pl. cit. 3,635).

**Stigmaphyllon cordatum** Rose.—Climbing shrubs: leaves ovate to oval, 1½ to 3 inches long, deeply cordate at base with sinus open, rounded or with a short acumination, glabrous on both sides, minutely reticulated; petioles often elongated, biglandular at top: inflorescence a simple or compound umbel; peduncles 4 to 7 inches long; rays either wanting or sometimes 4 inches long; pedicels 6 to 12 lines long, bibracteate below the middle; calyx 5-lobed, 8-glandular: petals oval, obtuse with denticulate margins: fertile stamens 6; styles 3; stigmas with triangular dilation: samaræ generally 3, 15 lines long, oblong, obtuse, dorsal side toothed 2 or 3 lines above the base without lateral crests.—Depart. Guatemala, alt. 5,000$^{ft}$, Mch. 1892, Heyde & Lux, (ex Pl. cit. 3,267).

**Oxalis clematodes.**—Fruticose; branches long-reclinate, fuscous, pilose, extremities cano-villose: petioles incrassate-articulate at barbate axils, twice exceeding leaves: leaflets ternate, subsessile, obovate (6–11 × 4–7$^{l}$), emarginate or entire,

the lateral oblique, the terminal one somewhat larger, pilose, canescent beneath: peduncles filiform, chiefly twice exceeding petiole, cymes 2–5-flowered, pedicels not geniculate: sepals oblong, apex rounded: petals thrice longer (7[l]), obtuse, yellow: filaments connate above ovary, edentate, the larger ones scabrid: capsule cano-villose, cells uniovulate or occasionally two-ovulate.—The most nearly related species, *O. pentantha* Jacq., differs by a less shrubby habit, pinnately trifoliolate leaves, acute sepals, dentate filaments, 3–4-ovulate cells, etc.—San Miguel Uspantán, Depart. Quiché, alt. 6,500[ft], April, 1892, Heyde & Lux, (ex. Pl. cit. 2,992.)

**Wimmeria cyclocarpa** Radlk.—Rami hornotini, pedicelli, petioli foliaque (subtus densius, supra sparsim) pubescentia; folia majuscula, petiolo 8[mm] adjecto circ. 7[cm] longa, 3[cm] et ultra lata, elliptico- vel ovato-lanceolata, acuta, vel abbreviata obtusa, immo suborbicularia, minutim glanduloso-serrulata, reti venarum pellucido laxiore instructa, pallide viridia; dichasia axillaria, quam folia breviora, 7–15-flora; fructus suborbicularis, vix brevior quam latus, diametro circ. 2[cm], basi et apice excisus, alis membranaceis, styli brevis apice 3-stigmatosi reliquis coronatus, e roseo pallescens.—OBSERV. Intermedia quasi inter W. pubescentem Radlk. (in Sitzungsber. k. bayer. Acad. 1878, p. 378) et W. confusam Hemsl. (W. pallidam Radlk. l. c. p. 379) et quidem quoad characteres anatomicos quoque: W. pubescens hypodermate fere continuo ad paginam foliorum superiorem instructa est, W. cyclocarpa supra venas tantum, W. confusa nullo. Ab una alteraque differt cellulis crystallophoris crystalla singula magna, ut in W. discolore et concolore, nec globoso-agglomerata foventibus. Insignis quoque stomatibus quodammodo elevatis. Uti omnes Wimmeriæ species, quam rem 1885 observavi, excellit cellulis liberi quibusdam (et ramorum et foliorum) materia elastica fœtis, quæ materia *kautchouk* certe affinis est et illam *Parameriæ* a me olim (in Sitzungsber. k. bayer. Acad. 1884, p. 515) descriptam in mentem revocat. Similem materiam inveni in *Tiliacearum* (*Prockiearum*) genere monotypico "*Plagiopteron* Griff." (*P. suaveolens* Griff.—in tabula *P. fragrans* ab autore appellatum—nunc *Sapindaceis* nunc *Malpighiaceis* nunc *Euphorbiaceis* affine dictum, cf. Walp. Rep. v. 370, Kurz For. Fl. Brit. Burma I. 172), in cortice, corona medullari, foliis florisque partibus. Deest hæc materia in reliquis *Prockiearum* generibus "*Prockia*" et "*Hasseltia.*" Deest quoque in genere

quam maxime *Wimmeriæ* affini, sed Asiæ incola (ex Forbes et Hemsley in Jour. Linn. Soc. XXIII. 125 monotypico) quod Hooker filius "*Tripterygium*" nominavit (T. Wilfordii Hook. f.). In quibusdam vero a nonnullis inter *Celastrineas* adscitarum *Hippocrateacearum* stirpibus taliscumque materia obvia est, uti nuperrime D. Solereder observavit (ex. gr. in Salacia micrantha Peyr. et in truncis quibusdam a H. Schenck sub. n. 347[b], 519 et 632 missis, *Salaciæ* et *Hippocrateæ* generibus, ut videtur, adscribendis (quorum unus, n. 632, in Engl. & Prantl Pflanzenfam. a D. Niedenzu sub *Malpighiaceis*, Fig. 37 A et B, depictus est). Suo loco D. Solereder ipse hanc rem (nec a Th. Loesener sub *Hippocrateaceis* in Engl. & Prantl Pflanzenfam. 1892, nec a H. Schenck in Anat. Lian. II, 1893 indicatam) fusius traclabit. (L. Radlkofer.)—Tree 30[ft] high, slopes of the volcano Jumaytepeque, Depart. Santa Rosa, alt. 6,000[ft], Sept. 1892, Heyde & Lux (ex Pl. cit. 3,708).

RHAMNUS CAPREÆFOLIA Schlecht., var. **discolor**.—Leaves somewhat coriaceous, upper surface excepting veins glabrous, the lower cano-velutinous.—Coban, Dept. Alta Verapaz, alt. 4,300[ft], Aug. 1885, von Türckheim, (ex Pl. cit. 710); distributed as typical. No. 3,051 of the series is more true to the description.

THOUINIA ACUMINATA Watson, var. **pubicalyx** Radlk.—Calyx pilis adpressis dense cano-pubescens.—A tree 25–30[ft] high; mountains around Lake Ayarza, Dept. Jalapa, alt. 8,800[ft] Sept. 1892, Heyde & Lux, (ex Pl. cit. 3,955); Volcan Jumaytepeque, alt. 6,000[ft], Nov. 1892, Heyde & Lux (ex Pl. cit. 4,122).

HELODISCUS ARGENTEUS Maxmw. (*Spiræa argentea* Mutis), var. ? **bifrons** Focke.—The genus *Helodiscus* is distinguished from *Spiræa* by its indehiscent carpels. This important character is associated with a peculiar habit, and it will therefore be advisable to keep the two genera separate. The North American *H. discolor* Maxmw. (*Spiræa discolor* Pursh, *Sp. ariæfolia* Sm.) is a very variable plant, and its subspecies *dumosa* Wats. looks like a different species approaching the *H. argenteus* by its narrow leaves. In the typical *H. argenteus* the leaves are silky above, but very likely this character is not constant. In our plant, as in other Guatemala specimens that I have seen, the upper surface of the leaves is glabrous (var. *bifrons*). It has larger flowers than

*H. discolor*, and narrow cuneate leaves tapering into the short stalk. After all it seems to be more natural to put it under *H. argenteus* than under *H. discolor;* but it may be doubted if true limits exist between these two pretended species. The specimen n. 3,034 is a very large one, and was gathered from a bush 3–4 yards high. The plant represented in H. B. K. Nov. gen. Amer. VI. tab. 562, as well as Guatemala specimens in the Berlin Herbarium, are very much smaller. (W. O. Focke).—Nebáj, Depart. Quiché, alt. 7,000ft, Apr. 1892, Heyde & Lux, (ex Pl. cit. 3,034).

RUBUS TRILOBUS Moç. et Sessé, var. **Guatemalensis** Focke.—Branches, petioles and under surfaces of the young leaves slightly pubescent, not so hairy as in the typical plant. Leaves broader than in type, slightly three-lobed; base of the terminal lobe often broader than its length, the lateral ones very short or indistinct.—Volcan de Agua, alt. 8,000ft, June 1892, Dr. W. C. Shannon, U. S. A., (ex Pl. cit. 3,631).

**Rubus superbus** Focke.—Rami suppetunt duo florentes.—Rami cum petiolis tomentoso-pubescentes, sparsim et minute aculeati. Stipulæ petiolares parvæ filiformes. Folia ternata, foliola omnia petiolulata, subcoriacea, crebre et argute serrata, utrinque in nervis pilosa, ceterum glabriuscula, supra nitida, subtus opaca; foliolum terminale ellipticum, longe acuminatum, basi rotundatum, in utroque latere 8–10-nervia; lateralia paullo minora similia. Inflorescentia sat ampla, elongata, inferne folio uno ternato et altero simplici prædita, subracemosa vel ramulis inferioribus trifloris paniculata. Rhachis cum pedunculis tomentoso-hirsuta, minute aculeata; bracteæ lanceolatæ, parvæ, tomentosæ. Pedicelli sepalis multo longiores, laterales in ramulis trifloris approximati, sed non oppositi. Flores spectabiles; sepala ovata, concava, utrinque cano-tomentosa. Petala magna, obovata, unguiculata, sepalis duplo vel triplo longiores. Stamina numerosa, stylos superantia, post anthesin patentia. Carpophorum hirsutum; carpella numerosa, styli apice clavati stigmate magno coronati.—The specimens were gathered in an old cornfield, and their growth may therefore have been more luxuriant than it would have been in other places. The size of the flowers is much greater than in any of the allied species, their diameter in a dried state being about one and one-half inches. Notwithstanding the imperfect knowledge of the plant there can be no doubt that it is sufficiently distinct from all described

species. Among the brambles (*Eubatus*) of Mexico and Central America *R. fagifolius*, *R. scandens*, *R. Schiedeanus* and *R. coriifolius* bear their flowers in compound racemes; *R. adenotrichos*, *R. Bogotensis* and allied forms are distinguished by their copious glandular bristles; *R. sapidus* may be easily distinguished by its short racemose inflorescence and prickly peduncles; in *R. humistratus* the flowers are usually solitary; *R. floribundus* has soft tomentose leaves; *R. Liebmannii*, *R. tiliæfolius* and *R. Uhdeanus* have small flowers and very hairy leaves. (W. O. Focke.)—San Miguel Uspantán, alt. 6,000$^{ft}$, Apr. 1892, Heyde & Lux, (ex Pl. cit. 3,326).

**Rubus poliophyllus** Focke.—(*R. coriifolius* Focke in Enumer. Pl. Guatemal. qu. edid. J. D. S. Part. II. p. 19; non Liebm.)—Rami teretiusculi, tomentoso-puberuli, aculeis e basi lata compressa recurvis armati, florentes et terminales et laterales. Folia inferiora quinata vel subquinata, superiora ternata, suprema sæpe simplicia; stipulæ petiolares, parvæ, filiformes. Foliola omnia petiolulata, subcoriacea, mollia, argute serrulata, superne stellulato-tomentella, subtus cano-tomentosa, in utroque latere 8–10-nervia; terminale ovato-elipticum vel oblongum, breviter acuminatum, lateralia minora similia. Inflorescentia mediocris, multiflora, divaricata, paniculata; rhachis ramuli pedicellique cano tomentosi, aculeis parvis raris setisque glanduliferis sparsis longis interdum quoque brevibus intermixtis muniti. Ramuli inferiores axillares, erecto-patentes, racemoso-pluriflori, sequentes bracteolis trifidis tomentosis suffulti, patentes, supra medium 3–7-flori. supremi bracteis simplicibus lanceolatis muniti, approximati, vulgo uniflori. florem terminalem superantes. Sepala ovata, breviter mucronata, utrinque tomentosa, post anthesin patentia. Petala (mediocria vel parva ?), decidua, alba. Stamina numerosa, stylis, ut videtur, æquilonga. Carpophorum pilosum; carpella sat numerosa, glabra. Fructus hemisphærici, nigri, ex acinis ca. 20 compositi.—This is the same species that I supposed at first sight to be a variety of *R. coriifolius*. Having seen more specimens I have no doubt now that it is quite different; in *R. coriifolius* all the branchlets of the panicle bear their flowers in racemes and not in cymes. It is much more difficult to distinguish the new plant from *R. Liebmannii* and *R. Uhdeanus;* its leaves, however, are much more tomentose than in the allied species. *R. Liebmannii* has a short drooping panicle and pink petals, *R. Uhdeanus* a

narrow elongated inflorescence and oblong fruits with very numerous grains. The leaves of *R. poliophyllus* resemble those of *R. floribundus* H. B. K., which has, however, a dense panicle, short pedicels and no glandular bristles. The knowledge of all these species is imperfect, and they require a more careful examination in their natural stations. As far as we can judge from the dried branches, it would be quite unnatural to put them under the same specific name. The specimens of this plant are nearly all alike; in no. 2,535 the pedicels bear besides the scattered long glandular bristles a quantity of short-pedicelled glands. In the Berlin Herbarium I have seen a specimen of this plant from Mexico (Otlamaltatle, Depart. Zacualtip, Prov. Hidalgo; leg. Seler sub no. 879). (W. O. Focke.)—San Rafael, Depart. Zacatepequez, alt. 6,500ft, April 1890, J. D. S., (ex Pl. cit. 2,141); same locality, Febr. 1892, J. D. S., (ex Pl. cit. 2,533); Volcan de Fuego, alt. 5,500ft, March 1892, J. D. S., (ex Pl. cit. 2,535).

CLIDEMIA CYMIFERA Donnell Smith, Botan. Gaz. XIV. 25: Cogn. in DC. Mon. Phan. VII. 1,017.

EXPLANATION OF PLATE XXI.—Fig. 1, flowering branch. Fig. 2, unopened flower. Fig. 3, petal. Fig. 4, vertical section of flower with petals removed. (Fig. 1 is natural size; the others are variously magnified.)

CUPHEA UTRICULOSA Kœhne, var. **Donnell-Smithii** Kœhne.—Differt a var. α et β foliis angustis, in ramis sterilibus linearibus, in fertilibus lineari-lanceolatis, præcipue vero calyce intus infra stamina in nervis omnibus villosiusculo. Flores ceterum ut in var. α; rami ut in var. Panamensi Hemsl. vestiti; fructus calycem æquans, quare stylus brevis totus exsertus.—Primavera, Depart. Sololá, alt. 800ft, July 1891, Dr. W. C. Shannon, U. S. A., (ex Pl. cit. 403).

**Mallostoma Shannoni**.—Cespitose: stems prostrate, rooting at nodes, tetragonal: ovate stipules 3-setose or the lateral bristles replaced by glandular teeth, short flat petioles decurrent in a pubescent wing, leaves oval to elliptical-oblong ($2\frac{1}{2}$–$4 \times 1$–$2^{in}$), conterminously obtuse or acute, coriaceous, venation obscure, like stems rubro-punctate, revolute margin and midrib beneath pubescent: flowers terminal, solitary, 4-merous, $5^{l}$ long: calyx-lobes triangular-lanceolate ($1^{l}$), equalling turbinate tube and ebracteate peduncle, truncate sinuses glandular-denticulate: lobes of infundibuliform corolla somewhat shorter than tube, ovate-oblong, scaly-pubescent within, throat naked: filaments short ($\frac{1}{2}^{l}$): style a third shorter than

tube, large stigma subglobose: capsule obovate (2$^{l}$), more or less free at apex, 8-costate, loculicidal at apex, septicidal at base; seeds 8–20, compressed, roundish ($\frac{1}{3}^{l}$), finely punctate, black and shining.—Nearest to *M. setosa* Benth. et Hook., and especially to the form or var. (*Arcytophyllum setosum* Schlecht. in Linnæa, XXVIII, 489).—"Forming a carpet-like turf," Chichoy, Depart. Chimaltenango, alt. 9,000$^{ft}$, March 1892, W. C. Shannon, Asst. Surg. U. S. A., associate of the Intercontinental Railway Commission, whose interesting collections along the lines of the surveys have been turned over to me for determination and distribution by Capt. M. M. Macomb, U. S. A., Engineer in charge, (ex Pl. cit. 371); San Miguel Uspantán, alt. 7,500$^{ft}$, April 1892, Heyde & Lux, (ex Pl. cit. 3,176).

**Hoffmannia rotata.**—Stems above obtusely tetragonal and ferruginous-furfuraceous: leaves opposite or 3–4-verticellate, elliptical-lanceolate or oblanceolate (4–7×1–1$\frac{1}{2}^{in}$), acuminate, more or less long-attenuated to short petiole, smooth above, paler and puberulous beneath with furfuraceous nerves: peduncles single in upper axils or pluri-fasciculate at lower nodes, filiform ($\frac{3}{4}$–2$^{in}$), cymes 6–15-flowered, axes slender: calyx urceolate (1$^{l}$), shorter than pedicel, teeth obtuse, sinuses glandular-appendaged: corolla rotate (4–5$^{l}$ in diam.), tube very short ($\frac{1}{2}^{l}$), lobes oblong: filaments a half or two thirds as long as anthers: ovary 2-celled, connate-lobed stigma subequalling anthers: berry globose (2$\frac{1}{2}^{l}$), crowned with incrassate limb, seeds red.—*H. pedunculata* Swz., related by foliage and corolla, is distinguished by merely opposite leaves, solitary peduncles, subsessile anthers, oblong berries and black seed.—A bush 3–6$^{ft}$ high; damp forests near San Migual Uspantán, alt. 7,000$^{ft}$, April 1892, Heyde & Lux, (ex Pl. cit. 3,169 and 3,174).

**Guettarda macrosperma** (§ MATTHIOLA Benth. et Hook.)—Arborescent, younger parts flavo-sericeous: stipules round-ovate (2$^{l}$), filiform-caudate, the interior toward base appendaged with intermixed subulate glands and white hairs: leaves ovate (2$\frac{3}{4}$ × 1$\frac{1}{2}^{in}$), the younger rhomboid or obovate, sparsely pilose above, glabrate beneath except venation and with the the 6–7 costal nerves and transverse veins conspicuous: peduncles shorter than leaves (8–16$^{l}$), velvety; flowers of twice bifid cymes crowded, 5–6-merous: calyx velvety, shortly tubu-

lar ($1\frac{1}{2}^{l}$), exceeding linear bract, thrice surpassing ovary, truncate: tube of sericeous corolla four times longer, thrice exceeding oval lobes: anthers narrowly linear ($1\frac{1}{2}^{l}$): style glabrous: drupe obovoid-oblong ($6–7 \times 3–4^{l}$), thick putamen angulate, 3–4-celled.—Santa Rosa, alt. 3,000$^{ft}$, May 1892, Heyde & Lux, (ex Pl. cit. 3,160).

**Parathesis calophylla.**—Except upper face of foliage everywhere densely ochraceous-tomentulose: leaves elliptical-lanceolate ($6–8 \times 2–2\frac{1}{4}^{in}$), conterminously attenuate, tapering into canaliculate long ($15 \times 18^{l}$) petiole, 15–20 costal nerves uniting within the revolute margins, evenulose, nigro-punctate beneath the tomentum: panicles chiefly axillary, subequalling leaves, broadly pyramidate, loose, axes stout and spreading; flowers exceeding pedicels, few-fasciculate at apex of secondary or tertiary branches: calyx-segments elongate-triangular ($1^{l}$): the corolline narrowly linear ($3\frac{1}{2} \times \frac{3}{4}^{l}$), albo-lepidote within: anthers nearly equalling filament ($1\frac{1}{4}^{l}$), obtuse, affixed at base, dehiscing throughout: ovary tomentose, tapering into style: berry not seen.—Other species with distinctly compound panicles may be distinguished either by glabrity or by minute calyx.—Tree 40–50$^{ft}$ high with a slender trunk, the glossy upper surface of the leaves remaining green in exsiccate specimens, and contrasting elegantly with the dark-brown undersurface.—San Miguel Uspantán, alt. 6,000$^{ft}$, Apr. 1892, Heyde & Lux, (ex Pl. cit. 2,909).

PARATHESIS MICRANTHERA.—In describing this species, vol. XIV. p. 27, and likewise in its subsequent notice, vol. XVIII. p. 4, the specific name was inadvertently written *micrantha* instead of *micranthera*.

**Ardisia venosa** Masters.—Arbuscula, foliis crassiusculis ellipticis vel obovato-oblongis integris, basi in petiolum latum brevem angustatis, apice breviter abrupteque acuminatis, nervo medio superne sulcato subtus prominente, venis numerosissimis confertis reticulatim divisis, versus marginem arcuatis; cymis paniculatis pyramidatis amplis laxe ramosis, ramis patentibus, (cum pedicellis fasciculatim dispositis), pilis glandulosis dense obsitis; calycis breviter tubulati sepalis ovato-lanceolatis purpureo-maculatis; corollæ $4^{mm}$ long. tubo subventricoso, petalis æstivatione contortis oblongis acutis sepalis duplo longioribus; filamentis versus basin tubi inter tuberculos parvos emergentibus petalis dimidio brevioribus;

antheris flavis demum basi cordato-bilobis, apice longe apiculatis, pollinis cellulis sphæricis; stylo corollam æquante vel superante.—Folia 20–25$^{cm}$ long., 7–8$^{cm}$ lat. Petiolus 2$^{cm}$. "Arbuscula gracilis 12–15 ped. fl. rubris albo-marginatis flavo-ocellatis."—Eastern slopes of Volcan Acatenango, Depart. Zacatepequez, alt. 7,000$^{ft}$, March, 1892, J. D. S., (ex Pl. cit. 2,485); Santa Rosa, alt. 4,000$^{ft}$, March, 1892, Heyde & Lux, (ex Pl. cit. 3,021).

**Tabernæmontana arborea** Rose.—A symmetrical tree, twenty-five feet high with trunk twelve feet long: leaves oblong to oblanceolate, three to eight inches long, abruptly acute or acuminate, tapering at base into a petiole (four to six lines long), shining above, paler beneath: flowers white, abundant in large compound corymbs: pedicels three to five lines long; bracts at base of flower none: calyx small; sepals oblong, obtuse one and one-half lines long: spreading scales four to five in the axil of each sepal: corolla tube slender, two to three lines long, narrower above, pubescent near the mouth; lobes oblong obtuse, five to six lines long: stamens inserted low in the tube, included: disk none; style short: follicles two, reflexed, compressed, oval, obtuse, two inches long, papillose-roughened.—The fruit in this species is much like *T. Donnell-Smithii*, but in habit, inflorescence, color and size of corolla, etc., the plant is very different. This species is not a typical *Tabernæmontana* but would belong to the genus *Peschiera* as the tribes were arranged by Miers. This latter genus, however, is not considered a valid one by Hemsley, nor by Durand. It differs from *Tabernæmontana*, as Miers defines it, in the shape of the corolla tube, the attachment of the stamens, the length of the style, absence of disk, papillose follicles and distinct ovaries—characters which it has in common with *Peschiera*, and which, if they be constant, ought to constitute a good genus. (J. N. Rose.)—Banks of the Rio Ocosito, Depart. Quezaltenango, alt. 250$^{ft}$, April, 1892, J. D. S., (ex Pl. cit. 2,766).

**Tabernæmontana Donnell-Smithii** Rose.—Large shrub 10 to 20 feet high, glabrous: leaves 3 to 8 inches long, 1 to 1½ inches broad, thin, oblong, tapering at base, abruptly long-acuminate, glabrous, entire, sessile or short-petioled: cymes with a few large flowers: bracts at base of flowers 3, broad and obtuse: calyx 5-parted; the two outer ones much shorter; the inner ones 8 lines long, 5 lines broad, obtuse, scales in

the axil of the sepals numerous: corolla yellow with broad obtuse lobes; tube 12 to 14 lines long a little swollen at the top: stamens inserted near the middle of the tube: disk prominent; style long; follicles 2, reflex, oblong and obtuse, 1½ to 2 inches long by 1 to 1½ inches broad; seeds numerous, oblong, 4 to 5 lines long.—Near *T. grandiflora*, but the follicles of this latter species are acuminate, the leaves evergreen, and the bracts and sepals different. Capt. Smith observes of this plant: "It is not exactly a tree in habit. It occurred everywhere I went from the coast up to the slopes of the volcanoes at an elevation of 5,000ft. The natives call it *cobal* (varnish gum)." *T. grandiflora*, as is known, was referred by Miers to *Stemmadenia*, but is retained by Mr. Hemsley in *Tabernæmontana*. The difference between these two genera is sometimes a little difficult to determine. My species has certainly the salver-form corolla of *Tabernæmontana*. (J. N. Rose.)—Under the following numbers of the series, collected by J. D. S., Depart. Escuintla, Escuintla, alt. 1,100ft, March 1890 (2,404), San Juan Mixtan, alt. 500ft, April 1890 (2,405), Naranjo, alt. 300ft, March 1892 (2,764), San José, sea-level, April 1892 (2,765); Depart. Amatitlan, Barranca de Eminencia, alt. 1,400ft, Feb. 1892 (2,762); Depart. Retalhuleu, San Felipe, alt. 2,000ft, April 1892 (2,763). Collected also by Dr. W. C. Shannon, U. S. A., Depart. Sololá, Primavera, alt. 1,400ft, Aug. 1891 (120), Santa Barbara, alt. 800ft, Aug. 1891 (152); Depart. Suchitepequez, Las Animas, alt. 600ft, Sept. 1891 (155).

**Philibertia refracta.**—Pubescent: stems branching: leaves ovate-lanceolate (24–28 × 10–12$^{l}$), tapering to acute apex, base cordate, under surface except veins nitid, petioles a third as long: peduncles equalling leaves; pedicels filiform, half as long, 18–22-fasciculate, hirsute, exterior bracts linear-lanceolate and foliaceous: calyx-segments narrow, acute, hairy: corolla rotate, reflexed, fuscous, smooth except ciliated margin, tube half as long as calyx (1$^{l}$), segments ovate-oblong (2½$^{l}$): exterior crown narrow; scales of the interior yellow, membranaceous, inflated-ovoid, more than half as long as corolla, a little exceeding gynostegium: ovaries glabrate, stigma conical and minutely bifid: follicles not seen.—Santiago, Depart. Zacatepequez, alt. 6,500ft, 1891, Rosalió Gómez, (ex Pl. cit. 787).

**Asclepias Guatemalensis.**—Stem stout, simple, about a yard high, pubescent: leaves subopposite, oval (3–4 × 1¾–2$^{in}$),

shortly acuminate, base cuneate, minutely scabrid above, flavescent beneath and with a pubescent conspicuous reticulation, lateral nerves approximate: peduncles 4–6, alternate at leafless summit of stem, linear-bracted; umbels many-flowered, pedicels exceeding flowers: calyx-segments linear-lanceolate (1′), pilose on back, margins scarious: corolla-segments four times longer, oblong, spreading, yellow: anthers equalling staminal column ($1\frac{1}{4}$′); coronal scales as long, white, cylindrical by involution of margins, rugulose, appendaged below sinuate apex with an as long incurved-subulate ligule: ovaries glabrous: follicles not seen.—The flowers of *A. ovata* Mart. et Gal., which may perhaps best be comparted with the above, differ by reflexed corolla, shorter pollinia and appendage of anther, conduplicate broad coronal scales ligulate from near base.—Santiago, alt. 6,500ft, 1891, Rosalió Gómez, (ex Pl. cit. 809).

**Dictyanthus ceratopetala.**—Hispid with spreading articulated hairs bulbous at base: leaves cordate-ovate (2–3 × 1–$1\frac{3}{4}$ in), about a half longer than petioles, acutely acuminated, minutely scabrid above, punctulate beneath and nearly glabrate except ferruginous nerves, margin ciliate: pedicels 2–8-fasciculate, 4-bracteolate, tetragonal, short, with peduncle added not equalling petiole and usually not exceeding calyx, flowers in anthesis single and about an inch long: calyx-segments lanceolate (6′): corolla glabrous, whole interior marked with elevated red-purple reticulations; tube semiglobose, a little exceeding calyx; limb divided nearly to tube; segments triangular, elongated (5–6′), obtuse, margins revolute: fruit not seen. —Of the other species with reticulated corollas, *D. reticulatus* Benth. et Hook. and *D. parviflorus* Hemsl., the former is the more nearly related, differing as briefly described by peduncles nearly as long as petioles and 1-flowered, ovate calyx-segments, twice larger flowers.—Plain of Santa Rosa, alt. 3,000ft, Aug. 1892, Heyde & Lux, (ex Pl. cit. 3,999).

**Fimbristemma stenosepala.**—Leaves acuminated-oblong or oblong-lanceolate (4–6 × $1\frac{1}{2}$–$2\frac{1}{2}$ in), twice to thrice exceeding petioles: cymes subequalling leaves, pedicels distant and shorter than peduncle: calyx-segments subglabrate except margins, membranaceous, lanceolate, acute: corolla-segments broader and longer, apex apiculate and laterally erose: tube of corona short (2′), pilose; the exterior border narrow, entire, fimbriate; the interior fringeless, appendaged ex-

ternally with distant quadrate lobes: follicles not seen.—Similar in habit, and nearly so in structure of crown, to *F. calycosa* described and figured in vol. XVI, 196, pl. XVI, of this journal ; that species differs chiefly by less developed inflorescence, somewhat larger flowers, large oval scarious sepals, glabrous tube of crown with its interior border simply divided into contiguous deltoid bidentate lobes. Borders of Lake Ayarza, alt. 8,000$^{ft}$, Sept. 1892, Heyde & Lux, (ex. Pl. cit. 4,004).

**Utricularia Verapazensis** Morong.—A small plant with delicate 1–2-flowered scapes, 3 or 4$^{cm}$ high. Bladder-bearing branches at the base, few and short, running under moss ; bladders $\frac{1}{2}$–1$^{mm}$ long. Leaves radical, obovate, obtuse, 3–5-nerved, petiolate, about 5$^{mm}$ long, persistent. Scape bearing a solitary, minute, subulate scale midway or lower. Pedicels capillary, 5–7$^{mm}$ long, subtended by a deeply three-parted bract, the lobes linear-lanceolate, obtuse, half as long as the pedicel. Flowers 8$^{mm}$ or more in diameter, apparently purple. Calyx deeply parted ; the lobes large, rounded, entire, nearly equal. Upper lip slightly angled on the broad, rounded apex ; lower lip much larger, three-lobed, the middle lobe emarginate; both lips slightly pubescent near and upon the margins. Spur upturned, acute, one-third longer than the lower lip, minutely glandular-pubescent. Capsule not seen.—Related to *Utricularia Endresii* H. G. Reichb. f. of Costa Rica, which grows in similar situations. Reichenbach calls his plant (Gard. Chron., 1874, 582) a "lentibulariaceous orchid." (T. Morong.)—Tree-trunks near San Pedro Carcha, Depart. Alta Verapaz, alt. 3,000$^{ft}$, Jan., 1887, Baron von Türckheim, (ex Pl. cit. 1,109).

TYNANTHUS GUATEMALENSIS, Botan. Gazette, XVIII, 6.

EXPLANATION OF PLATE XXII.—Fig. 1, flowering branch. Fig. 2, flower. Fig. 3, corolla laid open. Fig. 4, stamen. Fig. 5, pistil with interior of calyx. In figs. 2–5 the objects are variously enlarged.

**Adenocalymna (?) Ocositense.**—Glabrous: leaves conjugate, simply cirrhose; leaflets coriaceous, nitid, elliptical-oblong (5–7×1$\frac{3}{4}$–2$\frac{3}{4}$$^{in}$), abruptly acuminated and mucronulate, base rounded, both sides punctulate and sparsely sprinkled with patelliform glands, costal nerves 7–8 to a side; petioles about an inch long, petiolules a half shorter and glandular-incrassate at base and apex: peduncle from bracteose axils subeqalling petioles and the 2–4-fasciculate pedicels; lower

bracts (*foliola stipuloidea* of Miers) imbricating, the upper decussate and rhomboid-lanceolate with scarious tips: calyx sparingly glandular, campanulate ($3^{l}$ high and broad), truncate, subdenticulate near margin: corolla puberulous, veiny, roseate and purplish, 3 inches long, tube narrowed gradually and not contracted at calyx, lobes more than half as long: stamens included: ovary ovoid ($1\frac{1}{4} \times \frac{3}{4}^{l}$), closely glandular-tuberculate, lips of stigma semicircular, ovules regularly 1-seriate within margin of dissepiment.—In the absence of capsules the generic characters have not been satisfactorily verified.—Climbing high with flowers that fade to white, banks of the Rio Ocosito, Depart. Quezaltenango, alt. $250^{ft}$, April, 1892, J. D. S., (ex Pl. cit. 2,688).

**Aphelandra Heydeana.**—Fruticose: leaves membranaceous, nearly smooth, ovate to ovate-lanceolate or elliptical ($5–8 \times 2–3^{in}$), acuminate, more or less abruptly contracted and cuneately prolonged ($1\frac{1}{2}–2\frac{1}{2}^{in}$) into short petiole: rachis of solitary sessile spike short ($1–1\frac{1}{2}^{in}$), cano-pilose; bracts twice exceeding internodes, concave, nearly scarious, veiny, pubescent, obovate-oblong ($6 \times 3^{l}$), prolonged into a half as long recurved convolute cusp, margins 1–2-spinulo-dentate: sepals subequalling bract, elongate-lanceolate, aristate, little exceeding the similar bractlets: corolla glandular-pubescent, crimson, $2\frac{1}{4}–2\frac{1}{2}^{in}$ long; posterior lip erect, oblong ($11 \times 3\frac{1}{2}^{l}$), quite entire; anterior lip as long, broadly (6l) obovate-oblong, lobes connecting lips lingulate ($4^{l}$): capsules not seen.—Well marked by third part of leaf mostly simulating an alate petiole, squarrose spike, sepaloid bractlets, entire upper lip of corolla.—Chupadero, Depart. Santa Rosa, alt. $5{,}000^{ft}$, Oct., 1892, Heyde & Lux, (ex Pl. cit. 4,037).

EXPLANATION OF PLATE XXIII.—Fig. 1, flowering branch. Fig. 2, corolla laid open. Figs. 3 and 4, bracts Figs. 5 and 6, pistil with bractlets and sepals. (Figs. 1 and 2 are natural size; the others are slightly enlarged.)

PHYTOLACCA ICOSANDRA L., var. **octogyna.**—Leaves membranaceous, lanceolate-oblong, long-attenuate: bract equaling triquetrous pedicel ($3–4^{l}$): sepals oblong ($2\frac{1}{2} \times 1^{l}$), obtuse: stamens shorter, 14–18: styles 8: fruit depressed-globose, by abortion fewer-seeded. San Miguel Uspantán, alt. $7{,}000^{ft}$, April, 1892, Heyde & Lux, (ex Pl. cit. 3,031).

**Tradescantia Guatemalensis** C. B. Clarke (EUTRADESCANTIA).—Umbellis sessilibus bibracteatis, corolla intense cœrulea, antherarum loculis ovatis approximatis.—Stems procumbent,

rooting at nodes, pubescent on one side: sheathes 4–5[l] long, margins villose; leaves ovate-acuminate or ovate-lanceolate ($1\frac{1}{2}$–$3 \times \frac{1}{2}$–$1^{in}$), acute, equal at rounded or narrowed base, subpetiolate, both surfaces glabrous or pilose: bracts foliaceous in form and size, unequal in the pair; pedicels of terminal umbels elongate (16–20[l]), numerous, sparsely villose: sepals oblong ($3 \times 1^{l}$), obtuse apex barbate: petals marked with undulate black lines: filaments pilose below, anther-cells adjacent and oblique, minute connective cuneate: capsule globose (2[l]), puberulous, seeds to the cell two and subquadrate or one and longer, strongly rugose. (J. D. S.)—Santa Rosa, alt. 3,000[ft], April 1892, Heyde & Lux, (ex Pl. cit. 3,515); Volcan Pacaya, Depart. Amatitlan, alt. 9,000[ft], July 1892, Dr. W. C. Shannon, U. S. A., (ex Pl. cit. 3,665); Lake Ayarza, Sept. 1892, Heyde & Lux, (ex Pl. cit. 3,886).

**Tinantia leiocalyx** C. B. Clarke.—Sepalis extus omnino (aut fere) glabris, sine glandulis; pistillo 12-ovulato; cetera T. fugaci Scheidw. similis.—Erect (4[ft]), branching, pubescence of stems scattered: leaves ovate ($2\frac{3}{4}$–$3\frac{1}{2} \times 1\frac{3}{4}$–$2^{in}$), acuminate, base rounded or sub-cordate, cuneately produced into petiole, pubescent above: peduncles and pedicels naked, smooth; bracts lanceolate (4[l]), bractlets none: sepals large, oblong ($6$–$7 \times 2^{l}$), in flower a half longer than pedicels: longer filaments spiral, 2 broadly scariose-alate and albo-arachnoid below middle, the third exbarbate, anthers elliptical (1[l]); shorter filaments half as long, aureo-barbate at middle, anthers little smaller and circular. (J. D. S.)—Banks of the Rio Samalá, Depart. Retalhuleu, alt. 1,100[ft], Oct. 1891, Dr. W. C. Shannon, U. S. A., (ex Pl. cit. 695).

*Baltimore, Md.*

[From the BOTANICAL GAZETTE, May, 1891.]

# Some new Solanaceæ from Guatemala.

JOHN M. COULTER.

Mr. John Donnell Smith submitted to me a bundle of Solanaceous plants from his recent Gautemalan collections. Among them I find the following species which seem worthy of characterization, although in the present confused state of our knowledge concerning this perplexing group absolute certainty seems unattainable. Without any desire of possibly multiplying synonymy these species are put on record as follows:

**Solanum Donnell-Smithii** n. sp.— Said to be a vine, more or less rough with stellate hairs: prickles stout and subulate or recurved, yellowish, especially stout on the stem, usually more slender on the midrib and principal veins, copious or scanty: leaves rather large and membranaceous, oblong or ovate, sinuate-toothed or lobed, or even entire, 7 to 15 cm. long, with equally 4 to 6-rayed hairs below, and central division much elongated in the otherwise shorter-rayed hairs above: the simple loose few-flowered racemes or cymes soon lateral: calyx deeply 5-cleft, with stout often bulbous-dilated prickles and mostly long-acuminate lobes: corolla 2.5 cm. or more in diameter, whitish or light blue(?), deeply parted into lance-linear lobes, which are thickly stellate-pubescent without: anthers linear-lanceolate: the smooth globose berries becoming 1.5 to 2 cm. or more in diameter, turning red(?).— Escuintla, Depart. Escuintla, alt. 1100 ft., March 1890 (*J. D. S.* 2268); Concepcion, Depart. Escuintla, alt. 1200 ft., April 1890 (*J. D. S.* 2261); San Juan Mixtan, Depart. Escuintla, alt. 500 ft., April 1890 (*J. D. S.* 2262).

**Brachistus Escuintlensis** n. sp.— Glabrous throughout or minutely puberulent: leaves large and thin, ovate (often broadly so), acute or acuminate, usually oblique at base and more or less tapering into a petiole, entire or with a slightly wavy margin, very unequal in size, the largest becoming 20 to 23 cm. long and 12 to 13 cm. broad: flowers on pedicels of various lengths in umbellate axillary clusters along the main stem or on leafy branches: the short and broadly campanulate calyx with an entire margin (rarely a few almost indistinguishable teeth): corolla about 12 mm. long with 5 erect lobes 4 or 5 mm. long: berry globose, 8 to 9 mm. in diameter.— Escuintla, Depart. Escuintla, alt. 1100 ft., March 1890 (*J. D. S.* 2267).

**Bassovia Donnell-Smithii** n. sp.—Said to be 24 dm. high, more or less softly pubescent or even hirsute, the upper parts of the stem and inflorescence glandular: leaves ample and thin, petioled, ovate to ovate-lanceolate, acuminate, from almost entire to sharply sinuate-toothed or lobed, 7.5 to 17.5 cm. long, minutely pubescent above, more conspicuously pubescent below, the midrib and principal veins usually prominently bordered by dense whitish pubescence: flowers on long pedicels in rather dense axillary umbellate clusters: the glandular calyx with small but evident teeth: corolla with ovate obtuse or acute glandular lobes 5 or 6 mm. long: anthers whitish-scarious along the lines of dehiscence: "fruit red".—Gautemala, Depart. Guatemala, alt. 5000 ft., February 1890 (*F. D. S.* 2270); Dueñas, Depart. Zacatepequez, alt. 5000 ft., April 1890 (*F. D. S.* 2258).

BASSOVIA MACROPHYLLA. — Pansamalá, Depart. Alta Verapaz, alt. 3800 ft., April 1889 (*Türckheim* 1438). This plant was at first considered to be a variety of the new *B. Mexicana* B. L. Robinson, of Pringle's distribution of 1890, and is so reported in Mr. Smith's "Enumeration", Part II. However, Mr. Robinson has since kindly looked into the matter, and the conclusion seems evident that it is the South American Witheringia macrophylla, a plant of puzzling synonymy. Bentham and Hooker refer it to *Bassovia*, and Miers to *Brachistus*. The disposition made of it by Bentham and Hooker seems to be the most natural one.

*Crawfordsville, Ind.*

[From Botanical Gazette, Vol. XVII.] 1892

**A new Tabebuia from Mexico and Central America: Tabebuia Donnell-Smithii** n. sp., Plate xxvi.—A tree 50 to 75 feet high, often 4 feet in diameter: leaves palmately-compound on long peduncles 5 to 10 inches long; leaflets 7, very variable in size (the largest on petiolues 1 to 3½ inches long), oblong to ovate, acuminate, rounded or truncate at base, serrate, glabrate in age, 2 to 10 inches long, often 3 inches broad: flowers arranged in a large terminal panicle of small cymes, 8 inches long, with short glandular-pubescence throughout: cymes few-flowered, with deciduous scarious bracts; pedicels 6 lines long: calyx closed in bud, deeply cleft and two-lipped in flower, 6 lines long: corolla yellow, tubular, 5-lobed; tube 1 to 1½ inches long; limb 1½ inches broad: stamens 4, included, didynamous; filaments incurved, glabrous except at base; anther cells glabrous, oblong; sterile filament 1½ lines long: ovary sessile: pods 12 inches or more long, 10-ribbed, glandular-pubescent and loculicidally dehiscent: seeds in 2 rows.—Common on the mountains about Colima and cultivated about the town. Collected by Capt. John Donnell Smith, at Cuyuta in the Department of Escuintla, at an alt. of 200 feet, April, 1890, no. 2070; and, also, by Dr. Edward Palmer, at Colima, Jan. 9 to Feb. 6, 1891, no. 1098.

This is said to be one of the most beautiful trees of Mexico, and is called "primavera." The flowers are a beautiful golden yellow produced in great abundance, and generally appearing before the leaves. The trees are often large, sometimes 4 feet in diameter and the wood very valuable. The trees are cut into logs about 12 feet in length, and shipped from Manzanillo in the state of Colima to the United States, principally to Cincinnati and San Francisco where they are used a great deal for cabinet work and veneering. The tree is very common in the lower part of the Department Escuintla; it is tall and slender, usually leafless, and with the profuse delicate yellow flowers standing out against the sky like golden clouds.

The following note is from a letter of J. D. Smith, Jan. 7, 1892: "The trees were too branchless for my servant to climb, too stout for him to fell with his machete, and too high for me to discern what manner of leaves were those which occasionally showed themselves among the flowers. My flowers were all picked up on the ground. I think there must be many trees in those countries, of which botanists have not been able easily to collect specimens, and which, therefore, remain unknown."

I have not been able to place in any known species this interesting tree. It seems curious that a tree so widely distributed, of such attractive flowers and of some commercial importance should have remained unknown to botanists. The species, while not agreeing in all respects with *Tabebuia*, answers better to this than to any other known genus. In its inflorescence and ribbed pods it is more like *Godmannia* or *Cybistax*, but does not agree in other particulars.—J. N. Rose, *Dep't of Agriculture, Washington, D. C.*

[From Botanical Gazette, Vol. XVIII.]

# Notes on North American Umbelliferæ.

JOHN M. COULTER and J. N. ROSE.

WITH PLATE V.

The two preceding papers of this series were published in this journal November, 1889, and October, 1890. The present paper is a report upon the Umbelliferæ of Mr. John Donnell Smith's third distribution of Guatemalan plants. Most of the species were sent by H. Th. Heyde and Ernst Lux, who have made extensive collections for Mr. Smith. We have previously reported upon Guatemalan Umbelliferæ in this journal for January and October, 1890.

Hydrocotyle Mexicana Cham. & Schl.—Rio Negro, Dept. Quiché, at an altitude of 3,600ft, June, 1892, no. 3,350. Collected by Heyde & Lux.

Hydrocotyle prolifera Kell.—Amatitlan, Dept. Amatitlan, at an altitude of 3,990ft, May, 1892, no. 2,668. Collected by John Donnell Smith. This seems to be the same species collected at this place by Mr. Smith in 1889, and referred to in Bot. Gaz. xv. 259. Also from Santa Rosa, Dept. Santa Rosa, at an altitude of 3,000 to 4,000ft, April, 1892, no. 3,349. Collected by Heyde & Lux. This plant is less proliferous, the umbel sometimes being simple as in *H. umbellata*.

Spananthe paniculata Jacq.—Santa Rosa, Dept. Santa Rosa, at an altitude of 3,000 to 4,000ft, June 1892, no. 3,351. Collected by Heyde & Lux.

Eryngium Carlinæ Delar.—San Miguel Uspantán, Dept. Quiché, at an altitude of 6,000 to 12,000ft, April, 1892, no. 3,356. Collected by Heyde & Lux.

ARRACACIA DONNELLSMITHII C. & R.—Volcan de Agua, Dept. Zacatepequez, at an altitude of 10,000 ft. Collected near the type locality by W. C. Shannon, June, 1892.

**Arracacia Luxeana,** n. sp.—Probably a tall perennial, branching, glabrous: leaves ternate to triternate; petioles wholly inflated; leaflets ovate to lanceolate, 2.5 to 7.5$^{cm}$ long, sharply serrate, glabrous: peduncles short (10 to 12$^{cm}$ long) or wanting: umbel somewhat unequally 15 to 30-rayed, with involucre wanting or of a single leaflet; involucels four to eight, foliaceous, lanceolate, sharply serrate, often 2.5$^{cm}$ long; rays 5 to 10$^{cm}$ long; pedicels 8 to 14$^{mm}$ long: fruit ovate, acute, 6 to 8$^{mm}$ long, glabrous, flattened laterally, with slender conical stylopodium: carpel terete, with five prominent ribs; commissure narrow; oil tubes solitary in the intervals, two on the commissural side: seed with deeply sulcate face and furrowed under the intervals.—In the forest near San Miguel Uspantán, Dept. Quiché, at an altitude of 6,000 to 12,000$^{ft}$, April, 1892, no. 3,354. Collected by Lux.

EULOPHUS PEUCEDANOIDES Benth. & Hook.—Santa Rosa, Dept. Santa Rosa, at an altitude of 3,000 to 4,000$^{ft}$, May, 1892, no. 3,353. Collected by Heyde & Lux.

**ENANTIOPHYLLA.** n. gen.—Calyx-teeth obsolete. Fruit oblanceolate, flattened dorsally, glabrous. Carpel strongly flattened dorsally: dorsal and intermediate ribs prominent, acute; lateral ribs winged. Stylopodium slender, conical; styles furrowed on ventral face, slightly thickened above but not capitate. Oil-tubes solitary in the intervals, two on the commissural face. Seed strongly flattened dorsally, with a broad, shallow excavate face and furrowed under the intervals.—Tall glabrous perennials, with opposite ternately-compound leaves, lanceolate acute leaflets, linear bracts and bractlets, and white (?) flowers.

This genus belongs to Bentham and Hooker's subtribe ANGELICEÆ. From *Angelica* and *Prionosciadium* it differs chiefly in its conical stylopodium and opposite leaves. In fact, in the latter character it differs from most genera of *Umbelliferæ*, and has suggested the generic name. The genus is peculiar in having the carpel developed at the base into a broad stipe or foot, much as in Dr. Robinson's new genus *Coulterophytum*, but not so marked. It has several other characters in common with the latter genus, but has a

more compressed fruit and carpel, prominent dorsal and intermediate ribs and winged lateral ones, etc., etc.

SANICULA MEXICANA DC.—San Miguel Uspantán, Dept. Quiché, at an altitude of 6,000 to 12,000$^{ft}$, April, 1892, no. 3,357. Collected by Heyde & Lux.

**Enantiophylla Heydeana,** n. sp. Plate V.—From 12 to 15$^{dm}$ high and much branched: leaves large, 3-ternate or 2-ternate-pinnate,..or the upper ones simply ternate or pinnate; leaflets lanceolate, acuminate, 5 to 7.5$^{cm}$ long, glabrous above, paler and minutely scabrous on the veins, sharply and finely serrate; petiole broad and inflated: inflorescence large; upper branches verticillate, terminated by an umbel; peduncle 3 to 7.5$^{cm}$ long; rays 12 to 30$^{mm}$ long; pedicels 6 to 8$^{mm}$ long: bracts of involucre and involucel several, linear, and with scarious margins: fruit 10$^{mm}$ long; wings of lateral ribs about as broad as body; the dorsal ribs sharp and equal.—Collected by Rosalió Gómez, in fruit, at Santiago, Depart. Zacatepequez, at an altitude of 6,500$^{ft}$, 1891; and by Heyde, in flower, along the banks of the Rio Esclavo (where it is said to be common) near Santa Rosa, Depart. Santa Rosa, at an altitude of 3,000$^{ft}$, May, 1892. Distributed by John Donnell Smith under nos. 788 and 3,352 respectively.

CORIANDRUM SATIVUM L.—Introduced. Santa Rosa, Dept. Santa Rosa, at an altitude of 3,000$^{ft}$, July, 1892, no. 3,347. Collected by Heyde and Lux.

DAUCUS MONTANUS Willd.—San Miguel Uspantán, Dept. Quiché, at an altitude of 6,000 to 12,000$^{ft}$, April, 1892, no. 3,355. Collected by Heyde & Lux.

*Bloomington, Ind., and Washington, D. C.*

C.E. Faxon, del.

B. Meisel, Lith. Boston.

CLIDEMIA CYMIFERA, Donnell Smith.

E. Faxon, del

B. Meisel, Lith. Boston.

ENANTIOPHYLLA HYDEANA, Coulter & Rose.

C. E. Faxon, del. B. Meisel, Lith. Boston.

JUANULLOA SARGII, n. sp.

C.E. Faxon, del.

B. Meisel, Lith. Boston.

TYNANTHUS GUATEMALENSIS, Donnell Smith.

C.E. Faxon, del. B. Meisel, Lith. Boston.

TABEBUIA DONNELL-SMITHII, ROSE.

C. E. Faxon, del.

B. Meisel, Lith. Boston.

APHELANDRA HEYDEANA, n. sp.